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JOURNAL OF PROCEEDINGS

OF THE

NATIONAL EDUCATION ASSOCIATION

NATIONAL EDUCATION ASSOCIATION

Journal
OF
Proceedings and Addresses
OF THE
FORTY-SIXTH ANNUAL MEETING
HELD AT
CLEVELAND, OHIO
JUNE 29-JULY 3
1908

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NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

1857–1870

THE NATIONAL TEACHERS' ASSOCIATION

Organized August 26, 1857, at Philadelphia, Pennsylvania.

PURPOSE—*To elevate the character and advance the interest of the profession of teaching, and to promote the cause of popular education in the United States.*

The name of the association was changed at Cleveland, Ohio, on August 15, 1870, to the "National Educational Association."

1870–1907

NATIONAL EDUCATIONAL ASSOCIATION

Incorporated under the laws of the District of Columbia, February 24, 1886, under the name, "National Education Association," which was changed to "National Educational Association," by certificate filed November 6, 1886.

1907–

NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

Incorporated under a special act of Congress, approved June 30, 1906, to succeed the "National Educational Association." The charter was accepted and by-laws were adopted at the Fiftieth Anniversary Convention held July 10, 1907, at Los Angeles, California.

AN ACT TO INCORPORATE THE NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

SECTION 1. That the following named persons, who are now the officers and directors and trustees of the National Educational Association, a corporation organized in the year eighteen hundred and eighty-six, under the Act of General Incorporation of the Revised Statutes of the District of Columbia, viz.: Nathan C. Schaeffer, Eliphalet Oram Lyte, John W. Lansinger, of Pennsylvania; Isaac W. Hill, of Alabama; Arthur J. Matthews, of Arizona; John H. Hinemon, George B. Cook, of Arkansas; Joseph O'Connor, Josiah L. Pickard, Arthur H. Chamberlain, of California; Aaron Gove, *Ezekiel H. Cook, Lewis C. Greenlee, of Colorado; Charles H. Keyes, of Connecticut; George W. Twitmyer, of Delaware; J. Ormond Wilson, William T. Harris, Alexander T. Stuart, of the District of Columbia; Clem Hampton, of Florida; William M. Slaton, of Georgia; Frances Mann, of Idaho; J. Stanley Brown, *Albert G. Lane, Charles I. Parker, John W. Cook, Joshua Pike, Albert R. Taylor, Joseph A. Mercer, of Illinois; Nebraska Cropsey, Thomas A. Mott, of Indiana; John D. Benedict, of Indian Territory; John F. Riggs, Ashley V. Storm, of Iowa; John W. Spindler, Jasper N. Wilkinson, A. V. Jewett, Luther D. Whittemore, of Kansas; William Henry Bartholomew, of Kentucky; Warren Easton, of Louisiana; *John S. Locke, of Maine; M. Bates Stephens, of Maryland; Charles W. Eliot, *Mary H. Hunt, Henry T. Bailey, of Massachusetts; Hugh A. Graham, Charles G. White, William E. Elson, of Michigan; *William F. Phelps, Irwin Shepard, John A. Cranston, of Minnesota; Robert B. Fulton, of Mississippi; *F. Louis Soldan, James M. Greenwood, Willam J. Hawkins, of Missouri; Oscar J. Craig, of Montana; George L. Towne, of Nebraska; Joseph E. Stubbs, of Nevada; James E. Klock, of New Hampshire; James M. Green, John Enright, of New Jersey; Charles M. Light, of New Mexico; James H. Canfield, Nicholas Murray Butler, William H. Maxwell, Charles R. Skinner, *Albert P. Marble, James C. Byrnes, of New York; James Y. Joyner, Julius Isaac Foust, of North Carolina; Pitt Gordon Knowlton, of North Dakota; Oscar T. Corson, Jacob A. Shawan, Wells L. Griswold, of Ohio; Edgar S. Vaught, Andrew R. Hickham, of Oklahoma; Charles Carroll Stratton, Edwin D. Ressler, of Oregon; Thomas W. Bicknell, Walter Ballou Jacobs, of Rhode Island; David B. Johnson, Robert P. Pell, of South Carolina; Moritz Adelbert Lange, of South Dakota; Eugene F. Turner, of Tennessee; Lloyd E. Wolfe, of Texas; David H. Christensen, of Utah; Henry O. Wheeler, Isaac Thomas, of Vermont; Joseph L. Jarman, of Virginia; Edward T. Mathes, of Washington; T. Marcellus Marshall, Lucy Robinson, of West Virginia; Lorenzo D. Harvey, of Wisconsin; Thomas T. Tynan, of Wyoming; Cassia Patton, of Alaska; Frank H. Ball, of Porto Rico; Arthur F. Griffiths, of Hawaii; C. H. Maxson, of the Philippine Islands, and such other persons as now are or may hereafter be associated with them as officers or members of said Association, are hereby incorporated and declared to be a body corporate of the District of Columbia by the name of the "National Education Association of the United States," and by that name shall be known and have perpetual succession with the powers, limitations, and restrictions herein contained.

---

* Deceased.

SEC. 2. That the purpose and object of the said corporation shall be to elevate the character and advance the interests of the profession of teaching, and to promote the cause of education in the United States. This corporation shall include the National Council of Education and the following departments, and such others as may hereafter be created by organization or consolidation, to wit: the Departments, first, of Superintendence; second, of Normal Schools; third, of Elementary Education; fourth, of Higher Education; fifth, of Manual Training; sixth, of Art Education; seventh, of Kindergarten Education; eighth, of Music Education; ninth, of Secondary Education; tenth, of Business Education; eleventh, of Child-Study; twelfth, of Physical Education; thirteenth, of Natural Science Instruction; fourteenth, of School Administration; fifteenth, the Library Department; sixteenth, of Special Education; seventeenth, of Indian Education; the powers and duties and the number and names of these departments and of the National Council of Education may be changed or abolished at the pleasure of the corporation, as provided in its By-Laws.

SEC. 3. That the said corporation shall further have power to have and to use a common seal, and to alter and change the same at its pleasure; to sue or to be sued in any court of the United States, or other court of competent jurisdiction; to make by-laws not inconsistent with the provisions of this act or of the constitution of the United States; to take or receive, whether by gift, grant, devise, bequest, or purchase, any real or personal estate, and to hold, grant, convey, hire, or lease the same for the purposes of its incorporation; and to accept and administer any trust of real or personal estate for any educational purpose within the objects of the corporation.

SEC. 4. That all real property of the corporation within the District of Columbia, which shall be used by the corporation for the educational or other purposes of the corporation as aforesaid, other than the purposes of producing income, and all personal property and funds of the corporation held, used, or invested for educational purposes aforesaid, or to produce income to be used for such purposes, shall be exempt from taxation; *provided*, however, that this exemption shall not apply to any property of the corporation which shall not be used for, or the income of which shall not be applied to, the educational purposes of the corporation; and, *provided further*, that the corporation shall annually file, with the Commissioner of Education of the United States, a report in writing, stating in detail the property, real and personal, held by the corporation, and the expenditure or other use or disposition of the same, or the income thereof, during the preceding year.

---

* Deceased.

SEC. 5. That the membership of the said corporation shall consist of three classes of members—viz., active, associate, and corresponding—whose qualifications, terms of membership, rights, and obligations shall be prescribed by the By-Laws of the corporation.

SEC. 6. That the officers of the said corporation shall be a President, twelve Vice-Presidents, a Secretary, a Treasurer, a Board of Directors, an Executive Committee, and a Board of Trustees.

The Board of Directors shall consist of a President, the First Vice-President, the Secretary, the Treasurer, the chairman of the Board of Trustees, and one additional member from each state, territory, or district, to be elected by the active members for the term of one year, or until their successors are chosen, and of all life directors of the National Educational Association. The United States Commissioner of Education, and all former Presidents of the said Association now living, and all future Presidents of the Association hereby incorporated, at the close of their respective terms of office, shall be members of the Board of Directors for life. The Board of Directors shall have power to fill all vacancies in their own body; shall have in charge the general interests of the corporation, excepting those herein intrusted to the Board of Trustees; and shall possess such other powers as shall be conferred upon them by the By-Laws of the corporation.

The Executive Committee shall consist of five members, as follows: the President of the Association, the First Vice-President, the Treasurer, the Chairman of the Board of Trustees, and a member of the Association, to be chosen annually by the Board of Directors, to serve one year. The said committee shall have authority to represent, and to act for, the Board of Directors in the intervals between the meetings of that body, to the extent of carrying out the legislation adopted by the Board of Directors under general directions as may be given by said board.

The Board of Trustees shall consist of four members, elected by the Board of Directors for the term of four years, and the President of the Association, who shall be a member *ex officio*, during his term of office. At the first meeting of the Board of Directors, held during the annual meeting of the Association at which they were elected, they shall elect one trustee for the term of four years. All vacancies occurring in said Board of Trustees, whether by resignation or otherwise, shall be filled by the Board of Directors for the unexpired term; and the absence of a trustee from two successive annual meetings of the board shall forfeit his membership.

SEC. 7. That the invested fund now known as the "Permanent Fund of the National Educational Association," when transferred to the corporation hereby created, shall be held by such corporation as a Permanent Fund and shall be in charge of the Board of Trustees, who shall provide for the safe-keeping and investment of such fund, and of all other funds which the corporation may receive by donation, bequest, or devise. No part of the principal of such Permanent Fund or its accretions shall be expended, except by a two-thirds vote of the active members of the Association present at any annual meeting, upon the recommendation of the Board of Trustees, after such recommendation has been approved by vote of the Board of Directors, and after printed notice of the proposed expenditure has been mailed to all active members of the Association. The income of the Permanent Fund shall be used only to meet the cost of maintaining the organization of the Association and of publishing its annual volume of *Proceedings*, unless the terms of the donation, bequest, or devise shall otherwise specify, or the Board of Directors shall otherwise order. It shall also be the duty of the Board of Trustees to issue orders on the Treasurer for the payment of all bills approved by the Board of Directors, or by the President and Secretary of the Association acting under the authority of the Board of Directors. When practicable, the Board of Trustees shall invest, as part of the Permanent Fund, all surplus funds exceeding five hundred dollars that shall remain in the hands of the Treasurer after paying the expenses of the Association for the previous year, and providing for the fixed expenses and for all appropriations made by the Board of Directors for the ensuing year.

The Board of Trustees shall elect the Secretary of the Association, who shall also be secretary of the Executive Committee, and shall fix the compensation and the term of his office for a period not to exceed four years.

SEC. 8. That the principal office of the said corporation shall be in the city of Washington, District of Columbia, provided that the meetings of the corporation, its officers, committees, and departments, may be held, and that its business may be transacted, and an office or offices may be maintained, elsewhere, within the United States, as may be determined, by the Board of Directors, or otherwise in accordance with the By-Laws.

SEC. 9. That the Charter, Constitution, and By-Laws of the National Educational Association shall continue in full force and effect until the charter granted by this act shall be accepted by such Association at the next annual meeting of the Association, and until new By-Laws shall be adopted; and that the present officers, directors, and trustees of said Association shall continue to hold office and perform their respective duties as such until the expiration of terms for which they were severally elected or appointed, and until their successors are elected. That at such annual meeting the active members of the National Educational Association, then present, may organize and proceed to accept the charter granted by this Act and adopt By-Laws, to elect officers to succeed those whose terms have expired or are about to expire, and generally to organize the "National Education Association of the United States;" and that the Board of Trustees of the corporation hereby incorporated shall thereupon, if the charter granted by this act be accepted, receive, take over, and enter into possession, custody, and management of all property, real and personal, of the corporation heretofore known as the National Educational Association, incorporated as aforesaid, under the Revised Statutes of the District of Columbia and all its rights, contracts, claims, and property of every kind and nature whatsoever; and the several officers, directors, and trustees of such last-named Association, or any other person having charge of any of the securities, funds, books, or property thereof, real or personal, shall on demand deliver the same to the proper officers, directors, or trustees of the corporation hereby created. *Provided*, That a verified certificate executed by the presiding officer and secretary of such annual meeting, showing the acceptance of the charter granted by this act by the National Educational Association shall be legal evidence of the fact, when filed with the Recorder of Deeds of the District of Columbia; and, *provided further*, That in the event of the failure of the Association to accept the charter granted by this act at said annual meeting, then the charter of the National Educational Association and its corporate existence shall be, and are hereby extended until the thirty-first day of July, nineteen hundred and eight, and at any time before said date its charter may be extended in the manner and form provided by the general corporation law of the District of Columbia.

SEC. 10. That the rights of creditors of the said existing corporation, known as the National Educational Association, shall not in any manner be impaired by the passage of this act, or the transfer of the property heretofore mentioned, nor shall any liability or obligation, or the payment of any sum due or to become due, or any claim or demand, in any manner, or for any cause existing against the said existing corporation, be released or impaired; and the corporation hereby incorporated is declared to succeed to the obligations and liabilities, and to be held liable to pay and discharge all of the debts, liabilities, and contracts, of the said corporation so existing, to the same effect as if such new corporation had itself incurred the obligation or liability to pay such debt or damages, and no action or proceeding before any court or tribunal shall be deemed to have abated or been discontinued by reason of this act.

SEC. 11. That Congress may from time to time alter, repeal, or modify this act of incorporation, but no contract or individual right made or acquired shall thereby be divested or impaired.

Approved June 30, 1906.

Accepted and adopted as the Constitution of the National Education Association of the United States by the active members of the National Educational Association in annual session at Los Angeles, Cal., July 10, 1907.

BY-LAWS

(Adopted at meeting of active members held in Los Angeles, Cal., July 10, 1907.)

ARTICLE I—MEMBERSHIP

ACTIVE MEMBERS

SECTION 1. Teachers and all who are actively associated with the management of educational institutions, including libraries and educational publications, may become active members.

SEC. 2. Any eligible person may become an active member upon application indorsed by two active members, and the payment of an enrollment fee of two dollars and the annual dues for the current year.

SEC. 3. Active members only shall have the right to vote and to hold office in the Association, in the National Council of Education, or in the several departments.

SEC. 4. All active members shall pay annual dues of two dollars, and shall be entitled to the volume of *Proceedings* without "coupon" or other conditions.

SEC. 5. The annual membership fee shall be payable at the time of the annual convention, or by remittance to the Secretary before September first of each year.

SEC. 6. Any active member may discontinue membership by giving written notice to the Secretary before September first in any year, and may restore the same only on payment of the enrollment fee of two dollars and the annual dues for the current year. A written application for active membership shall constitute an agreement to continue such membership and pay annual dues, unless written notice of discontinuance is sent to the Secretary before September first of the fiscal year for which such discontinuance shall apply.

CORRESPONDING MEMBERS

SEC. 7. Eminent educators not residing in America may be elected by the Board of Directors to be corresponding members. The number of corresponding members shall at no time exceed fifty.

SEC. 8. Corresponding members shall be entitled to the volume of *Proceedings* without the payment of fees or other conditions.

ASSOCIATE MEMBERS

SEC. 9. Any person on paying an annual membership of two dollars may become an associate member.

SEC. 10. Associate members may receive the volume of *Proceedings* in accordance with the usual "coupon" conditions, as printed on the membership certificate.

LIFE MEMBERS

SEC. 11. All life members and life directors shall be denominated active members and shall enjoy all the powers and privileges of such members without the payment of annual dues.

ROLL OF MEMBERS

SEC. 12. The names of active, life, and corresponding members only shall be printed in the annual *Yearbook*, with their respective educational titles, offices, and addresses, and the list shall be revised annually by the Secretary of the Association.

ARTICLE II—OFFICERS AND COMMITTEES

SECTION 1. The President, Vice-Presidents, Directors, and Treasurer shall be chosen by the active members of the Association by ballot, unless otherwise ordered, on the third day of each annual session, a majority of the votes cast being necessary to a choice. They shall continue in office until the close of the annual session subsequent to their election and until their successors are chosen, except as hereinafter provided.

COMMITTEE ON RESOLUTIONS

SEC. 2. At the first session of each annual meeting of the Association the President shall appoint a Committee on Resolutions.

COMMITTEE ON NOMINATIONS

SEC. 3. At the third session of each annual meeting of the Association there shall be appointed by the President a Committee on Nominations, consisting of one member from each state and territory represented. Such a committee shall be appointed by the President on the nomination of a majority of the active members from such state or territory present at the meeting called for the purpose of making such nomination; *provided*, however, that such appointment shall be made by the President without such nomination, when the active members in attendance from any state or territory shall fail to make a nomination.

SEC. 4. The meetings of the active members of the several states to nominate members of the nominating committee shall be held at 5:30 P. M. on the first day of the annual meeting of the Association, at such places as shall be announced in the general program.

ARTICLE III—DUTIES OF OFFICERS

THE PRESIDENT

SECTION 1. The President shall preside at all meetings of the Association and of the Board of Directors, and shall perform the duties usually devolving upon a presiding officer. In his absence the first Vice-President in order, who is present, shall preside; and in the absence of all the Vice-Presidents, a *pro tempore* chairman shall be appointed on nomination, the Secretary putting the question.

THE SECRETARY

SEC. 2. The Secretary shall keep a full and accurate report of the proceedings of the general meetings of the Association and of all meetings of the Board of Directors, and shall conduct such correspondence and transact such other business of the Association as the directors or Executive Committee may assign, and shall have his records present at all meetings of the Association and the Board of Directors.

THE TREASURER

SEC. 3. The Treasurer shall receive, and under the direction of the Board of Trustees hold in safekeeping, the current income of the Association; shall expend the same only upon order of said board; shall keep an exact account of his receipts and expenditures, with vouchers for the latter; which accounts, ending the first day of July in each year, he shall render to the Board of Trustees and, when approved by said board, he shall report to the Board of Directors. The Treasurer shall give such bond for the faithful discharge of his duties as may be required by the Board of Trustees; and he shall continue in office until the first meeting of the Board of Directors held prior to the annual meeting of the Association next succeeding that at which he is elected, and until his successor has been elected and has qualified.

AUDITOR OF ACCOUNTS

SEC. 4. It shall be the duty of the President, Secretary, and Treasurer of the Association to appoint annually some competent person to examine the securities of the Permanent Fund held by the Board of Trustees, and his certificate, showing the condition of the said fund, shall be attached to the annual report of the Board of Trustees.

CERTIFICATION OF BILLS

SEC. 5. The President and Secretary shall certify to the Board of Trustees all bills approved by the Board of Directors.

ARTICLE IV—THE BOARD OF DIRECTORS

SECTION 1. The Board of Directors shall hold its regular annual meeting at the place of the annual convention, and not less than two hours before the assembling of the Association.

SEC. 2. Special meetings may be held at such other times and places as the board or the President shall determine.

SEC. 3. Each new board shall organize at the session of its election.

ARTICLE V—THE NATIONAL COUNCIL OF EDUCATION

OBJECTS AND DUTIES

SECTION 1. The National Council of Education shall have for its object the consideration and discussion of educational questions of public and professional interest; the proposal to the Board of Directors, from time to time, of suitable subjects for investigation and research, and the recommendation of the amount of appropriations that should be made for such purposes; the appointment and general supervision of such special committees of investigation and research as may be provided for and authorized by the Board of Directors of the Association; the consideration, discussion, and recommendation to the Board of Directors for disposition of all reports by such special committees of research as may have been appointed on its recommendation or by its authority; the annual preparation and presentation to the Association at its annual convention of a report on "Educational Progress during the Past Year;" and in other ways shall use its best efforts to further the objects of the Association and to promote the cause of education in general.

MEMBERSHIP OF THE COUNCIL

SEC. 2. *The Council shall consist of one hundred and twenty members, selected from the membership of the Association. Any member of the Association identified with educational work is eligible to membership in the Council.

SEC. 3. *The Board of Directors shall annually elect ten members, and the Council shall elect ten members, each member to serve for six years, or until his successor is elected. At the meeting of 1908 enough additional members shall be elected in the same manner to make the total number of members one hundred and twenty. The terms of the members so elected shall expire as follows: one-sixth in one year, one-sixth in two years, one-sixth in three years, one-sixth in four years, one-sixth in five years, one-sixth in six years.

SEC. 4. The annual election of members of the Council shall be held in connection with the annual meetings of the Association. If the Board of Directors shall fail, for any reason, to fill its quota of members annually, the vacancy or vacancies shall be filled by the Council.

SEC. 5. The absence of a member from two consecutive annual meetings of the Council shall be considered equivalent to resignation of membership, and the Council shall fill vacancies caused by absence from the Council as herein defined, as well as vacancies caused by death or resignation, for the unexpired term. All persons who have belonged to the Council shall, on the expiration of their membership, become honorary members, with the privilege of attending its regular sessions and participating in its discussions. No state shall be represented in the Council by more than eight members.

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* As amended at meeting of active members held in Cleveland, Ohio, July 1, 1908.

BY-LAWS OF THE COUNCIL

SEC. 6. The Council may establish by-laws for its government not inconsistent with the Act of Incorporation or of the By-Laws of the Association, provided such by-laws shall be submitted to and approved by the Board of Directors of the Association before they shall become operative.

ARTICLE VI—DEPARTMENTS

SECTION 1. A department shall consist of those members of the Association who are especially interested in the consideration of a particular group of educational problems. Each department shall be administered by a president, vice-president, secretary, and such other officers as it shall deem necessary to conduct its affairs.

SEC. 2. Each department shall hold its annual meeting at the time of the annual convention of the Association, except the Department of Superintendence, which may hold its annual meeting in February of each year, or at such other time as may be determined by the officers of said department.

SEC. 3. The objects of the annual department meetings shall be the discussion of questions pertaining to their respective fields of educational work. The programs of these meetings shall be organized and conducted by the respective presidents, in conference with, and under the general direction of, the President of the Association. Each department shall be limited to two sessions, with formal programs, at the time of the annual convention, except that a third session for business or informal round-table conference may be held at the discretion of the department officers.

SEC. 4. Upon the written request of twenty active members of the Association for permission to establish a new department, the Board of Directors may grant such permission. Such new department shall in all respects be entitled to the same rights and privileges as the departments named in the Act of Incorporation.

ARTICLE VII—MEETINGS

SECTION 1. The annual meeting of the Association shall be held at such time and place as shall be determined by the Board of Directors.

SEC. 2. Special meetings may be called by the President at the request of five directors.

SEC. 3. Any department of the Association may hold a special meeting at such time and place as by its own regulations it shall appoint.

SEC. 4. No paper, lecture, or address shall be read before the Association or any of its departments, in the absence of its author, nor shall any such paper, lecture, or address be published in the volume of *Proceedings*, without the consent of the Association, upon the approval of the Executive Committee.

ARTICLE VIII—AMENDMENTS

SECTION 1. These by-laws may be altered or amended at any annual meeting by the unanimous vote of the members present; or by a two-thirds vote of the members present, provided that the substance of the alteration or amendment has been proposed in writing at a previous annual meeting.

NATIONAL EDUCATIONAL ASSOCIATION

NOW KNOWN AS THE

NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

CERTIFICATE

of Acceptance of Charter and Adoption of By-Laws under Act of Congress approved June 30, 1906.

We, the undersigned, Nathan C. Schaeffer, the presiding officer, and Irwin Shepard, the secretary of the meeting of the National Educational Association held at Los Angeles, California, on the 10th day of July, 1907, said meeting being the annual meeting of the Association held next after the passage of an Act of Congress entitled "An Act to Incorporate the National Education Association of the United States;"

Do hereby certify, that at said meeting held pursuant to due notice, a quorum being present, the said Association adopted resolutions of which true copies are hereto attached, and accepted the Charter of the National Education Association of the United States, granted by said Act of Congress, and adopted by-laws as provided in said act and elected officers; and the undersigned pursuant to said resolutions

Do hereby certify that the National Education Association of the United States has duly accepted said Charter granted by said Act of Congress, and has adopted by-laws, and is the lawful successor to the National Educational Association.

In witness whereof, we have hereunto signed our names this 20th day of August, 1907.

(Signed) NATHAN C. SCHAEFFER, *Presiding Officer.*
(Signed) IRWIN SHEPARD, *Secretary.*

VERIFICATION

RESOLUTIONS ADOPTED BY THE ACTIVE MEMBERS, JULY 10, 1907

1. *Resolved*, That the National Educational Association hereby accepts the Charter granted by an act of Congress entitled "An Act to Incorporate the National Education Association of the United States," passed June 30, 1906, and that the President and Secretary of this meeting be authorized and directed to execute and file with the Recorder of Deeds of the District of Columbia a verified certificate showing the acceptance by the Association of the Charter granted by said act.

2. *Resolved*, That the proposed by-laws of which notice was given at the annual meeting of the Association held on July 6, 1905, which are printed in full in the journal of said meeting, be and the same are hereby adopted to take effect immediately.

3. *Resolved*, That the Association adopt as its corporate seal a circle containing the title "National Education Association of the United States," and the dates "1857-1907."

4. *Resolved*, That the Association do now proceed to elect officers, and to organize under the Charter granted by the Act of Congress.

Filed in the office of the Recorder of Deeds of the District of Columbia, September 4, 1907.

CALENDAR OF MEETINGS

NATIONAL TEACHERS ASSOCIATION

1857—PHILADELPHIA, PA. (Organized)
James L. Enos, Chairman.
W. E. Sheldon, Secretary.

1858—CINCINNATI, OHIO
Z. Richards, President.
J. W. Bulkley, Secretary.
A. J. Rickoff, Treasurer.

1859—WASHINGTON, D. C.
A. J. Rickoff, President.
J. W. Bulkley, Secretary.
C. S. Pennell, Treasurer.

1860—BUFFALO, N. Y.
J. W. Bulkley, President.
Z. Richards, Secretary.
O. C. Wight, Treasurer.

1861, 1862—No session.

1863—CHICAGO, ILL.
John D. Philbrick, President.
James Cruikshank, Secretary.
O. C. Wight, Treasurer.

1864—OGDENSBURG, N. Y.
W. H. Wells, President.
David N. Camp, Secretary.
Z. Richards, Treasurer.

1865—HARRISBURG, PA.
S. S. Greene, President.
W. E. Sheldon, Secretary.
Z. Richards, Treasurer.

1866—INDIANAPOLIS, IND.
J. P. Wickersham, President.
S. H. White, Secretary.
S. P. Bates, Treasurer.

1867—No session.

1868—NASHVILLE, TENN.
J. M. Gregory, President.
L. Van Bokkelen, Secretary.
James Cruikshank, Treasurer.

1869—TRENTON, N. J.
L. Van Bokkelen, President.
W. E. Crosby, Secretary.
A. L. Barber, Treasurer.

1870—CLEVELAND, OHIO
Daniel B. Hagar, President.
A. P. Marble, Secretary.
W. E. Crosby, Treasurer.

NAME CHANGED TO

NATIONAL EDUCATIONAL ASSOCIATION

1871—ST. LOUIS, MO.
J. L. Pickard, President.
W. E. Crosby, Secretary.
John Hancock, Treasurer.

1872—BOSTON, MASS.
E. E. White, President.
S. H. White, Secretary.
John Hancock, Treasurer.

1873—ELMIRA, N. Y.
B. G. Northrop, President.
S. H. White, Secretary.
John Hancock, Treasurer.

1874—DETROIT, MICH.
S. H. White, President.
A. P. Marble, Secretary.
John Hancock, Treasurer.

1875—MINNEAPOLIS, MINN.
W. T. Harris, President.
M. R. Abbott, Secretary.
A. P. Marble, Treasurer.

1876—BALTIMORE, MD.
W. F. Phelps, President.
W. D. Henkle, Secretary.
A. P. Marble, Treasurer.

1877—LOUISVILLE, KY.
M. A. Newell, President.
W. D. Henkle, Secretary.
J. Ormond Wilson, Treasurer.

1878—No session.

1879—PHILADELPHIA, PA.
John Hancock, President.
W. D. Henkle, Secretary.
J. Ormond Wilson, Treasurer.

1880—CHAUTAUQUA, N. Y.
J. Ormond Wilson, President.
W. D. Henkle, Secretary.
E. T. Tappan, Treasurer.

1881—ATLANTA, GA.
James H. Smart, President.
W. D. Henkle, Secretary.
E. T. Tappan, Treasurer.

1882—SARATOGA SPRINGS, N. Y.
G. J. Orr, President.
W. E. Sheldon, Secretary.
H. S. Tarbell, Treasurer.

1883—SARATOGA SPRINGS, N. Y.
E. T. Tappan, President.
W. E. Sheldon, Secretary.
N. A. Calkins, Treasurer.

1884—MADISON, WIS.
Thomas W. Bicknell, President.
H. S. Tarbell, Secretary.
N. A. Calkins, Treasurer.

1885—SARATOGA SPRINGS, N. Y.
F. Louis Soldan, President.
W. E. Sheldon, Secretary.
N. A. Calkins, Treasurer.

1886—TOPEKA, KAN.
N. A. Calkins, President.
W. E. Sheldon, Secretary.
E. C. Hewett, Treasurer.

1887—CHICAGO, ILL.
W. E. Sheldon, President.
J. H. Canfield, Secretary.
E. C. Hewett, Treasurer.

1888—SAN FRANCISCO, CAL.
Aaron Gove, President.
J. H. Canfield, Secretary.
E. C. Hewett, Treasurer.

1889—NASHVILLE, TENN.
Albert P. Marble, President.
J. H. Canfield, Secretary.
E. C. Hewett, Treasurer.

1890—ST. PAUL, MINN.
J. H. Canfield, President.
W. R. Garrett, Secretary.
E. C. Hewett, Treasurer.

1891—TORONTO, ONT.
W. R. Garrett, President.
E. H. Cook, Secretary.
J. M. Greenwood, Treasurer.

1892—SARATOGA SPRINGS, N. Y.
E. H. Cook, President.
R. W. Stevenson, Secretary.
J. M. Greenwood, Treasurer.

1893—CHICAGO, ILL.
(International Congress of Education.)
Albert G. Lane, President.
Irwin Shepard, Secretary.
J. M. Greenwood, Treasurer.

1894—ASBURY PARK, N. J.
Albert G. Lane, President.
Irwin Shepard, Secretary.
J. M. Greenwood, Treasurer.

1895—DENVER, COLO.
Nicholas Murray Butler, President.
Irwin Shepard, Secretary.
I. C. McNeill, Treasurer.

1896—BUFFALO, N. Y.
Newton C. Dougherty, President.
Irwin Shepard, Secretary.
I. C. McNeill, Treasurer.

1897—MILWAUKEE, WIS.
Charles R. Skinner, President.
Irwin Shepard, Secretary.
I. C. McNeill, Treasurer

1898—WASHINGTON, D. C.
J. M. Greenwood, President.
Irwin Shepard, Secretary.
I. C. McNeill, Treasurer.

1899—LOS ANGELES, CAL.
E. Oram Lyte, President.
Irwin Shepard, Secretary.
I. C. McNeill, Treasurer.

1900—CHARLESTON, S. C.
Oscar T. Corson, President.
Irwin Shepard, Secretary.
Carroll G. Pearse, Treasurer.

1901—DETROIT, MICH.
James M. Green, President.
Irwin Shepard Secretary.
L. C. Greenlee, Treasurer.

1902—MINNEAPOLIS, MINN.
William M. Beardshear, President.
Irwin Shepard, Secretary.
Charles H. Keyes, Treasurer.

1903—BOSTON, MASS.
Charles W. Eliot, President.
Irwin Shepard, Secretary.
W. M. Davidson, Treasurer.

1904—ST. LOUIS, MO.
John W. Cook, President.
Irwin Shepard, Secretary.
McHenry Rhoads, Treasurer.

1905—ASBURY PARK and OCEAN GROVE, N. J.
William H. Maxwell, President.
Irwin Shepard, Secretary.
James W. Crabtree, Treasurer.

1906—No session.

1907—LOS ANGELES, CAL.
Nathan C. Schaeffer, President.
Irwin Shepard, Secretary.
J. N. Wilkinson, Treasurer.

NAME CHANGED TO

NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

1908—CLEVELAND, OHIO
Edwin G. Cooley, President.
Irwin Shepard, Secretary.
Arthur H. Chamberlain, Treasurer.

NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

OFFICERS FOR 1907–8

GENERAL ASSOCIATION

Edwin G. Cooley	*President*	Chicago, Ill.
Irwin Shepard	*Secretary*	Winona, Minn.
Arthur H. Chamberlain	*Treasurer*	Pasadena, Cal.

VICE-PRESIDENTS

Nathan C. Schaeffer, State Superintendent of Public Instruction	Harrisburg, Pa.
William H. Elson, Superintendent of Schools	Cleveland, Ohio.
Charles H. Judd, Professor of Psychology, Yale University	New Haven, Conn.
H. A. Ustrud, State Superintendent of Public Instruction	Pierre, S. Dak.
J. F. Stillwell, Superintendent of Public Schools	Phoenix, Ariz.
Joseph H. Hill, President of State Normal Schools	Emporia, Kans.
W. A. Clark, Professor of Psychology, State Normal School	Kearney, Neb.
Walter M. Kern, President of State Manual Training School	Ellendale, N. Dak.
Wilbur F. Gordy, Superintendent of Schools	Springfield, Mass.
J. T. Kingsbury, President of University of Utah	Salt Lake City, Utah.
Elmer Ellsworth Robey, Superintendent of County Schools	Kokomo, Ind.
James H. Baker, President of University of Colorado	Boulder, Colo.

BOARD OF TRUSTEES

Carroll G. Pearse	Milwaukee, Wis.	Term expires July, 1908
James M. Greenwood, *Secretary*	Kansas City, Mo.	Term expires July, 1909
Nicholas Murray Butler, *Chairman*	New York, N. Y.	Term expires July, 1910
Henry B. Brown	Valparaiso, Ind.	Term expires July, 1911
Edwin G. Cooley	Chicago, Ill.	*Ex officio*

EXECUTIVE COMMITTEE

Edwin G. Cooley	*President*	Chicago, Ill.
Nathan C. Schaeffer	*First Vice-President*	Harrisburg, Pa.
Arthur H. Chamberlain	*Treasurer*	Pasadena, Cal.
Nicholas Murray Butler	*Chairman Board of Trustees*	New York, N. Y.
W. T. Harris	*Member by Election*	Washington, D. C.

Irwin Shepard	*Secretary*	Winona, Minn.

BOARD OF DIRECTORS

Directors ex officio

Edwin G. Cooley, Chicago, Ill.
Nathan C. Schaeffer, Harrisburg, Pa.
Arthur H. Chamberlain, Pasadena, Cal.
Nicholas Murray Butler, New York, N. Y.
Irwin Shepard, Winona, Minn.

Life Directors

Bicknell, Thomas W., Providence, R. I.
Board of Education, Nashville, Tenn.
Brown, Elmer Ellsworth, Washington, D. C.
Butler, Nicholas Murray, New York, N. Y.
Canfield, James H., New York, N. Y.
*Cook, E. H., Madison, Wis.
Cook, John W., DeKalb, Ill.
Corson, Oscar T., Columbus, Ohio
Eliot, Charles W., Cambridge, Mass.
Lyte, Eliphalet Oram, Millersville, Pa.
Marshall, T. Marcellus, Stouts Mills, W. Va.
Maxwell, William H., New York, N. Y.
Parker, Charles I., Chicago, Ill.
Pickard, Josiah L., Los Angeles, Cal.
Pike Joshua, Jerseyville, Ill.
Schaeffer, Nathan C., Harrisburg, Pa.
Skinner, Charles R., Watertown, N. Y.
*Soldan, F. Louis, St. Louis, Mo.

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* Deceased.

Life Directors—*continued*

Gove, Aaron, Denver, Colo.
Graham, H. A., Mt. Pleasant, Mich.
Green, James M., Trenton, N. J.
Greenwood, J. M., Kansas City, Mo.
Harris, W. T., Washington, D. C.
Jewett, A. V., Abilene, Kan.
State Teachers' Association, Illinois
Stratton, C. C., St. Johns, Oregon
Taylor, A. R., Decatur, Ill.
Teachers' Institute, Philadelphia, Pa.
White, Charles G., Lake Linden, Mich.
Wilson, J. Ormond, Washington, D. C.

Directors by Election

North Atlantic Division

Maine	Payson Smith, State Superintendent of Public Schools	Auburn
New Hampshire	James E. Klock, Principal, State Normal School	Plymouth
Vermont	Mason S. Stone, State Superintendent of Education	Montpelier
Massachusetts	John T. Prince, Agent, State Board of Education	West Newton
Rhode Island	Walter Ballou Jacobs, Professor of Education, Brown Univ.	Providence
Connecticut	Charles H. Keyes, Supervisor, South District Schools	Hartford
New York	James C. Byrnes, Member, Board of Examiners, City Schools	New York
New Jersey	John Enright, Superintendent of County Schools	Freehold
Pennsylvania	John Morrow, Superintendent of Schools	Allegheny

South Atlantic Division

Delaware	George W. Twitmyer, Superintendent of Schools	Wilmington
Maryland	M. Bates Stephens, State Superintendent of Public Education	Annapolis
District of Columbia	W. T. Harris, 1360 Fairmont St	Washington
Virginia	Joseph L. Jarman, President, State Female Normal School	Farmville
West Virginia	Thomas C. Miller, State Superintendent of Free Schools	Charleston
North Carolina	J. I. Foust, President State Normal and Industrial College	Greensboro
South Carolina	D. B. Johnson, President, Winthrop Normal and Industrial College	Rock Hill
Georgia	William M. Slaton, Superintendent of Schools	Atlanta
Florida	Miss Clem Hampton, Department of Education	Tallahassee

South Central Division

Kentucky	W. H. Bartholomew, Principal of Girls' High School	Louisville
Tennessee	I. C. McNeill, Superintendent of Schools	Memphis
Alabama	Isaac W. Hill, Superintendent of Schools	Opelika
Mississippi	E. E. Bass, Superintendent of Schools	Greenville
Louisiana	Warren Easton, Superintendent of Schools	New Orleans
Texas	Cree T. Work, President of College of Industrial Arts	Denton
Arkansas	George B. Cook, Superintendent of Schools	Hot Springs
Oklahoma	E. E. Balcomb, Department of Agriculture, State Normal School	Weatherford
Indian Territory	John F. Benedict, Territorial Superintendent of Schools	Muskogee

North Central Division

Ohio	Henry G. Williams, Dean, Normal College, Ohio University	Athens
Indiana	Thomas A. Mott, Superintendent of Schools	Richmond
Illinois	Walter R. Hatfield, Prin., Elementary School, 6030 Monroe Ave.	Chicago
Michigan	David MacKenzie, Principal, Central High School	Detroit
Wisconsin	Charles P. Cary, State Superintendent of Public Instruction	Madison
Iowa	P. C. Hayden, Director of Music, Public Schools	Keokuk
Minnesota	S. L. Heeter, Superintendent of Schools	St. Paul
Missouri	John R. Kirk, President, State Normal School	Kirksville
North Dakota	Neil C. MacDonald, Superintendent of Schools	Lidgerwood
South Dakota	M. A. Lange, State Department of Public Instruction	Pierre
Nebraska	George L. Towne, Editor, *Nebraska Teacher*	Lincoln
Kansas	John MacDonald, Editor, *Western School Journal*	Topeka

Western Division

Montana	Oscar J. Craig, President, State University of Montana	Missoula
Wyoming	Estelle Reel, Superintendent of Indian Schools	Washington, D. C.
Colorado	Charles E. Chadsey, Superintendent of Schools	Denver
New Mexico	W. H. Decker, Superintendent of Schools	Gallup
Arizona	A. J. Matthews, President, Territorial Normal School	Tempe
Utah	William Allison, Superintendent of Schools	Ogden
Nevada	J. E. Stubbs, President, State University of Nevada	Reno
Idaho	S. Belle Chamberlain, State Superintendent of Public Instruction	Boise
Washington	Edward T. Mathes, Principal, State Normal School	Bellingham
Oregon	J. H. Ackerman, State Superintendent of Public Instruction	Salem
California	James A. Barr, Superintendent of Schools	Stockton

DEPARTMENT OFFICERS

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President	Joseph Swain, President, Swarthmore College	Swarthmore, Pa
Vice-President	James M. Green, Principal, State Normal School	Trenton, N. J.
Secretary	John W. Carr, Superintendent of Schools	Dayton, Ohio
Executive Committee	James M. Greenwood, Superintendent of Schools	Kansas City, Mo.
Executive Committee	Elmer Ellsworth Brown, U. S. Commissioner of Education	Washington, D. C.
Executive Committee	W. T. Harris, 1360 Fairmont Ave., N.W.	Washington, D. C.

Kindergarten

President	Bertha Payne, School of Education, University of Chicago	Chicago, Ill.
Vice-President	Barbara Greenwood, Supervisor of Kindergartens	Pomona, Cal.
Secretary	Harriet Rockwell, Director, Kentucky School Kindergarten	Cleveland, O.

Elementary

President	John K. Stableton, Superintendent of Schools	Bloomington, Ill.
Vice-President	Adelaide S. Baylor, Superintendent of Schools	Wabash, Ind.
Secretary	S. Belle Chamberlain, State Supt. of Public Instruction	Boise, Idaho

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President	Gilbert B. Morrison, Principal, McKinley High School	St. Louis, Mo.
First Vice-President	H. H. Cully, Principal, Glenville High School	Cleveland, Ohio
Second Vice-President	Fletcher Durell, Lawrenceville School	Lawrenceville, N. J.
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Higher

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Vice-President	William O. Thompson, President, Ohio State University	Columbus, Ohio
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President	Augustus O. Thomas, President, State Normal School	Kearney, Neb.
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Secretary	Henry G. Williams, Dean, Normal College, Ohio University	Athens, O.

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Second Vice-President	Ella C. Sullivan, District Superintendent of Schools	Chicago, Ill.
Secretary	George B. Cook, Superintendent of Schools	Hot Springs, Ark.

Manual

President	Jesse D. Burks, Principal, Teachers Training School	Albany, N. Y.
Vice-President	Anna C. Hedges, Supt., Hebrew Technical School for Girls	Brooklyn, N. Y.
Secretary	William E. Roberts, Supervisor of Manual Training	Cleveland, Ohio

Art

President	George W. Eggers, Chicago Normal School	Chicago, Ill.
Vice-President	Mary A. Woodmansee, Supervisor of Drawing	Dayton, Ohio
Secretary	Florence E. Ellis, Supervisor of Drawing	Cleveland, Ohio

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President	Mrs. Frances Elliott Clark, Supervisor of Music	Milwaukee, Wis.
Vice-President	George E. Krinbill, Supervisor of Music	Bisbee, Ariz.
Secretary	Edward B. Birge, Supervisor of Music,	Indianapolis, Ind.

Business

President	H. B. Brown, President, Valparaiso University	Valparaiso, Ind.
Vice-President	James Ferguson Department of Commerce, High School	San Francisco, Cal.
Secretary	James S. Curry, Commercial Department, Central High School	Cleveland, Ohio

Child-Study

President	William H. Burnham, Professor of Pedagogy, Clark University	Worcester, Mass.
Vice-President	William L. Bryan, President, Indiana University	Bloomington, Ind.
Secretary	H. Austin Aikins, Prof. of Philosophy, Western Reserve Univ.,	Cleveland, O

Science

President	Irving O. Palmer, Science Master, High School	Newtonville, Mass
Vice-President	Frank F. Almy, Professor of Physics, Iowa College	Grinnell, Ia.
Secretary	Henry Kerr, Principal, High School	Norwalk, Cal.

Physical

President	William W. Hastings, Y. M. C. A. Training School	Springfield, Mass.
Vice-President	Clark W. Hetherington, University of Missouri	Columbia, Mo.
Secretary	Martha J. Johnson, Supervisor of Physical Education	Salt Lake City, Utah

School Administration

President	William O. Thompson, President, Ohio State University	Columbus, O.
Vice-President	J. W. McClymonds, Superintendent of Schools	Oakland, Cal.
Secretary	William George Rruce, Editor, *Am. School Board Journal*	Milwaukee, Wis.

Library

President	John R. Kirk, President, State Normal School	Kirksville, Mo.
Vice-President	Mary Eileen Ahern, Editor, *Public Libraries*	Chicago, Ill.
Secretary	Ida J. Dacus, Librarian, Winthrop Normal College	Rock Hill, S. C.

Special Education

President	E. R. Johnstone, Superintendent, School for Feeble Minded	Vineland, N. J.
Vice-President	O. H. Burritt, Institution for the Blind	Overbrook, Pa.
Secretary	Jennie Smith, Day School for the Deaf	Eau Claire, Wis.

Indian Education

President	L. M. Compton, Superintendent of Indian School	Tomah, Wis.
Vice-President	Harwood Hall, Superintendent of Indian School	Riverside, Cal.
Secretary	Estelle Reel, Superintendent of Indian Schools	Washington, D. C.

Technical Education

President	Louis C. Monin. Armour Institute of Technology	Chicago, Ill.
Vice-President	Albert B. Storms, President, Iowa State College	Ames, Iowa
Secretary	George A. Merrill, Principal, School of Mechanical Arts	San Francisco, Cal.

Department of Rural and Agricultural Education.

President	E. C. Bishop, Deputy Superintendent of Pub. Inst.	Lincoln, Neb.
Vice-President	D. B. Johnson, Pres. Winthrop Nor. and Indus. Coll.	Rock Hill, S. C.
Secretary	E. E. Balcomb, Agricultural Dept., State Normal School	Weatherford, Okla.

Department of National Organizations of Women.

President	Laura Drake Gill, Pres., Association of Collegiate Alumnae	Washington, D. C.
Vice-President	Mrs. Frederic Schoff, President, Juvenile Court Association	Philadelphia, Pa.
Secretary	Mrs. Philip N. Moore, Trustee of Vassar College	St. Louis, Mo.

NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

OFFICERS FOR 1908–9

GENERAL ASSOCIATION

Lorenzo D. Harvey	*President*	Menomonie, Wis.
Irwin Shepard	*Secretary*	Winona, Minn.
Arthur H. Chamberlain	*Treasurer*	Pasadena, Cal.

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John C. Byrnes, Member of Board of Examiners, City Schools	New York, N. Y.
Arnoldas H. McClure, Superintendent of Schools	Yuma, Ariz.
Carleton B. Gibson, Superintendent of Schools	Columbus, Ga.
Joseph Rosier, Superintendent of Schools	Fairmont, W. Va.
Jasper L. McBrien, State Superintendent of Public Instruction	Lincoln, Neb.
George M. Philips, Principal, State Normal School	West Chester, Pa.
Benjamin F. Moore, Superintendent of Schools	Marion, Ind.
Charles Evans, Superintendent of Schools	Ardmore, Okla.
James A. Edwards, Editor, *Iowa Normal Monthly*	Dubuque, Ia.
George H. Martin, Secretary, State Board of Education	West Salem, Mass.
Katherine L. Craig, State Superintendent of Public Instruction	Denver, Colo.

BOARD OF TRUSTEES

James M. Greenwood, *Secretary*	Kansas City, Mo.	Term expires July, 1909
Nicholas Murray Butler, *Chairman*	New York, N. Y.	Term expires July, 1910
Henry B. Brown	Valparaiso, Ind.	Term expires July, 1911
Carroll G. Pearse	Milwaukee, Wis.	Term expires July, 1912
Lorenzo D. Harvey	Menomonie, Wis.	*Ex officio*

EXECUTIVE COMMITTEE

Lorenzo D. Harvey	*President*	Menomonie, Wis.
Edwin G. Cooley	*First Vice-President*	Chicago, Ill.
Arthur H. Chamberlain	*Treasurer*	Pasadena, Cal.
Nicholas Murray Butler	*Chairman, Board of Trustees*	New York, N. Y.
John H. Phillips	*Member by Election*	Birmingham, Ala.

Irwin Shepard	*Secretary*	Winona, Minn.

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Directors ex officio

Lorenzo D. Harvey, Menomonie, Wis.
Edwin G. Cooley, Chicago, Ill.
Arthur H. Chamberlain, Pasadena, Cal.
Nicholas Murray Butler, New York, N. Y.
Irwin Shepard, Winona, Minn.

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Bicknell, Thomas W., Providence, R. I.
Board of Education, Nashville, Tenn.
Brown, Elmer Ellsworth, Washington, D. C.
Butler, Nicholas Murray, New York, N. Y.
Canfield, James H., New York, N. Y.
Cook, John W., DeKalb, Ill.
Cooley, Edwin G., Chicago, Ill.
Corson, Oscar T., Columbus, Ohio
Eliot, Charles W., Cambridge, Mass.
Gove, Aaron, Denver, Colo.
Graham, H. A., Mt. Pleasant, Mich.
Jewett, A. V., Abilene, Kan.
Lyte, Eliphalet Oram, Millersville, Pa.
Marshall, T. Marcellus, Stouts Mills, W. Va.
Maxwell, William H., New York, N. Y.
Parker, Charles I., Chicago, Ill.
Pickard, Josiah L., Los Angeles, Cal.
Pike, Joshua, Jerseyville, Ill.
Schaeffer, Nathan C., Harrisburg, Pa.
Skinner, Charles R., Watertown, N. Y.
State Teachers' Association, Illinois
Stratton, C. C., St. Johns, Ore.

Life Directors—*continued*

Green, James M., Trenton, N. J.
Greenwood, J. M., Kansas City, Mo.
Harris, W. T., Washington, D. C.
Taylor, A. R., Decatur, Ill.
Teachers' Institute, Philadelphia, Pa.
White, Charles G., Lake Linden, Mich.
Wilson, J. Ormond, Washington, D. C.

Directors by Election

Alabama	John W. Abercrombie, President, University of Alabama	University P. O.
Arizona	A. J. Matthews, President, Territorial Normal School	Tempe
Arkansas	George B. Cook, State Superintendent of Public Instruction	Little Rock
California	Duncan MacKinnon, Superintendent of Schools	San Diego
Colorado	Charles E. Chadsey, Superintendent of Schools	Denver
Connecticut	Charles H. Keyes, Superintendent of Schools, South District	Hartford
Delaware	George W. Twitmyer, Superintendent of Schools	Wilmington
District of Columbia	W. T. Harris, Ex-United States Commissioner of Education	Washington
Florida	Miss Clem Hampton, Department of Education	Tallahassee
Georgia	Carleton B. Gibson, Superintendent of Schools	Columbus
Idaho	Walter R. Siders, Superintendent of Schools	Pocatello
Illinois	Walter R. Hatfield, Principal of Elementary School	Chicago
Indiana	Thomas A. Mott, Superintendent of Schools	Richmond
Iowa	Frank L. Smart, Superintendent of Schools	Davenport
Kansas	John MacDonald, Editor, *Western School Journal*	Topeka
Kentucky	W. H. Bartholomew, Principal of Girls' High School	Louisville
Louisiana	Warren Easton, Superintendent of Schools	New Orleans
Maine	Payson Smith, State Superintendent of Schools	Augusta
Maryland	M. Bates Stephens, State Superintendent of Public Instruction	Annapolis
Massachusetts	Irving O. Palmer, Science Master, Newton High School	Newtonville
Michigan	David McKenzie, Principal of Central High School	Detroit
Minnesota	S. L. Heeter, Superintendent of Schools	St. Paul
Mississippi	E. E. Bass, Superintendent of Schools	Greenville
Missouri	John R. Kirk, President, State Normal School	Kirksville
Montana	S. D. Largent, Superintendent of Schools	Great Falls
Nebraska	Albert A. Reed, Associate Professor of Secondary Education	Lincoln
Nevada	Romanzo Adams, Professor of Education, University of Nevada	Reno
New Hampshire	Henry C. Morrison, State Superintendent of Public Instruction	Concord
New Jersey	John Enright, Superintendent of County Schools	Freehold
New Mexico	R. R. Larkin, Superintendent of Schools	Las Vegas
New York	Augustus S. Downing, First Assistant Commissioner of Education	Albany
North Carolina	Isaac G. Griffin, Superintendent of Schools	Salisbury
North Dakota	B. A. Dunbar, Superintendent of Schools	Park River
Ohio	William McK. Vance, Superintendent of Schools	Delaware
Oklahoma	E. D. Cameron, State Superintendent of Public Instruction	Guthrie
Oregon	J. H. Ackerman, State Superintendent of Public Instruction	Salem
Pennsylvania	Reed B. Teitrick, Deputy State Sup't. of Public Instruction	Harrisburg
Rhode Island	Herbert W. Lull, Superintendent of Schools	Newport
South Carolina	David B. Johnson, President, Winthrop Normal & Industrial Coll.	Rock Hill
South Dakota	Freeman H. Hoff, Superintendent of Schools	Mitchell
Tennessee	I. C. McNeill, Superintendent of Schools	Memphis
Texas	Cree T. Work, President of College of Industrial Arts	Denton
Utah	William Allison, Superintendent of Schools	Ogden
Vermont	Mason S. Stone, State Superintendent of Education	Montpelier
Virginia	Joseph L. Jarman, President, State Female Normal School	Farmville
Washington	Edward T. Mathes, Principal, State Normal School	Bellingham
West Virginia	Robert A. Armstrong, Head, English Dep't. W. Virginia Univ.	Morgantown
Wisconsin	Charles P. Cary, State Superintendent of Public Instruction	Madison
Wyoming	A. D. Cook, State Superintendent of Public Instruction	Cheyenne

DEPARTMENT OFFICERS

National Council

President	Joseph Swain, President, Swarthmore College	Swarthmore, Pa.
Vice-President	James M. Green, Principal, State Normal School	Trenton, N. J.
Secretary	John W. Carr, Superintendent of Schools	Dayton, Ohio
Executive Committee	Elmer Ellsworth Brown, U. S. Commissioner of Education	Washington, D. C.
Executive Committee	W. T. Harris, 1360 Fairmont Ave., N.W.	Washington, D. C.
Executive Committee	James M. Greenwood, Superintendent of Schools	Kansas City, Mo.

Kindergarten

President	Mabel A. McKinney, Supervisor, Public School Kindergartens	Cleveland, Ohio
Vice-President	Luella A. Palmer, Teachers Coll., Columbia University	New York, N. Y.
Secretary	Caroline Sewall, Director of Kindergartens	Denver, Colo.

Elementary

President	James F. Chamberlain, State Normal School	Los Angeles, Cal.
Vice-President	Adelaide S. Baylor, Superintendent of Schools	Wabash, Ind.
Secretary	Margaret McConkey, Supervisor of Primary Schools	Springfield, Mass.

Secondary

President	J. Stanley Brown, Principal, High School	Joliet, Ill.
First Vice-President	S. A. Underwood Principal, Westport High School	Kansas City, Mo.
Second Vice-President	Wm. H. Smiley, Principal, East Side High School	Denver, Colo.
Secretary	Solomon Weimer, Central High School	Cleveland, Ohio

Higher

President	Frank Strong, Chancellor, University of Kansas	Lawrence, Kans.
Vice-President	W. F. Book, Professor of Phil. and Edu., State University	Missoula, Mont.
Secretary	Fred. E. Bolton, Director, School of Edu., State University	Iowa City, Iowa

Normal

President	Henry G. Williams, Dean, Normal College, Ohio University	Athens, Ohio
Vice-President	D. B. Johnson, President, Winthrop Normal and Industrial Coll.	Rock Hill, S. C.
Secretary	Louise M. Hannum, State Normal School	Greeley, Colo.

Superintendence

President	William H. Elson, Superintendent of Schools	Cleveland, Ohio
First Vice-President	D. B. Johnson, President, Winthrop Normal and Industrial Coll.	Rock Hill, S. C.
Second Vice-President	Ida C. Bender, Supervisor of Primary Grades	Buffalo, N. Y.
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Manual

President	James E. Addicott, Newman Manual Training School	New Orleans, La.
Vice-President	Edna D. Day, Home Economics, University of Missouri	Columbia, Mo.
Secretary	Alvin E. Dodd, N. Bennett St. Industrial School	Boston, Mass.

Art

President	Florence E. Ellis, Supervisor of Drawing	Cleveland, Ohio
Vice-President	C. Valentine Kirby, Manual Training High School	Denver, Colo.
Secretary	Emma Church, School of Applied and Normal Arts	Chicago, Ill.

Music

President	Frances E. Clark, Supervisor of Music, Public Schools	Milwaukee, Wis.
Vice-President	Charles I. Rice, Director of Music, Public Schools	Worcester, Mass.
Secretary	P. C. Hayden, Director of Music, Public Schools	Keokuk, Iowa

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President	S. R. Hoover, Principal of Commercial Dept., West High School	Cleveland, Ohio
Vice-President	D. W. McMillan, Head of Commercial Dept., West High School	Detroit, Mich.
Secretary	H. C. Spillman, Teacher of Commercial Branches, High School	Butte, Mont.

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President	George E. Johnson, Superintendent of Playground Association	Pittsburg, Pa.
Vice-President	A. Caswell Ellis, Professor of Education, University of Texas	Austin, Texas
Secretary	Will G. Chambers, Prof. of Psychology, State Normal School	Greeley, Colo.

Physical

President	Wm. W. Hastings, Y. M. C. A. Training School	Springfield, Mass.
Vice-President	W. P. Bowen, Professor of Education, State Normal College	Ypsilanti, Mich.
Secretary	Rebecca Stoneroad, Director, Physical Training	Washington, D. C.

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Vice-President	Franklin T. Jones, Teacher of Science, University School	Cleveland, Ohio
Secretary	N. Henry Black, Roxbury Latin School	Boston, Mass.

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President	Francis H. Haserot, President, Board of Education	Cleveland, Ohio
First Vice-President	Otto C. Schneider, President, Board of Education	Chicago, Ill.
Second Vice-President	Danford E. Ainsworth, President, Board of Education	Albany, N. Y.
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Chairman Ex. Com.	William O. Thompson, President, Ohio State University	Columbus, Ohio

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Secretary	Joseph F. Daniels, Librarian, State Agricultural College	Fort Collins, Colo.

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President	Jennie C. Smith, Public School for the Deaf	Eau Claire, Wis.
Vice-President	Cornelia D. Bingham, Normal School	Chicago, Ill.
Secretary	Jennie C. Smith, Principal, Oral Day School for Deaf	Eau Claire, Wis.

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Secretary	Estelle Reel, Superintendent of Indian Schools	Washington, D. C.

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Vice-President	Albert B. Storms, President of Iowa State College	Ames, Iowa
Secretary	George A. Merrill, Principal, School of Mechanical Arts	San Francisco

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Vice-President	A. B. Graham, College of Agriculture, State University	Columbus, Ohio
Secretary	E. E. Balcomb, State Supervisor of Industrial Education	Stillwater, Okla.

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President	Laura Drake Gill, President, Association Collegiate Alumnae	Washington, D. C.
Vice-President	Mrs. Sarah S. Pratt Decker, Member of Educational Council	Denver, Colo.
Secretary	Mrs. Herbert W. Mengel, Member State Education Committee	Louisville, Ky.

TREASURER'S REPORT

TO THE

NATIONAL EDUCATION ASSOCIATION

JULY 1, 1907, TO JUNE 30, 1908

Arthur H. Chamberlain, Treasurer, in account with the National Education Association

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BALANCE ON HAND JULY 1, 1907

Balance brought forward from Treasurer's Report for year ending June 30, 1907	$2,480.43

RECEIPTS

From Annual Meeting:				
Advance enrollment				
From Mark Keppel	$4,652.00			
From James A. Barr	3,232.00	$7,884.00		
Convention registration		9,315.00		
After convention registration		5,151.00	$22,350.00	
From railroads:				
Southern Pacific		$3,812.00		
San Pedro, Los Angeles, & Salt Lake Ry.		22.00		
Atchison, Topeka & Santa Fe Ry.		28.00	3,862.00	
Total from Los Angeles Convention				$26,212.00
From Memberships, Washington Meeting of Department of Superintendence				1,354,00
From Secretary's office during the year:				
Membership fees			$ 9,610.00	
Enrollment fees			432.00	
Exchange			11.29	
Sale of back volumes			585.11	
Sale of committee reports, etc.			215.73	$10,854.13
From interest on Permanent Fund				6,742.60
From Royalty on Sale of Reports of Committees of Ten and Fifteen				56.75
From interest on deposits in First National Bank of Chicago				238.81
Total receipts for year				$47,938.72

DISBURSEMENTS

Board of Trustees:		
For investment	$10,000.00	
For expenses	384.28	$10,384.28
Executive Committee expenses:		
President	$341.75	
First-Vice President	20.20	
Treasurer	373.05	
Chairman Board of Trustees	98.35	
Member by election	282.25	$1,115.60
General Secretary's office:		
Salary of Secretary	$4,000.00	
Postage	2,069.25	
Telegrams	187.10	
Freight and express	129.52	
Clerical services	2,339.33	
Exchange	8.91	
Stationery and office supplies	201.35	
Traveling	774.63	
Rent	600.00	
Miscellaneous	46.65	$10,356.74

Printing:			
Volumes of Proceedings (8,500 volumes)	$6,241.34		
Yearbook (5,500 copies)	883.42		
		$7,124.76	
Reprints from volume		771.85	
Special reports, extra editions		187.80	
Executive Committee Bulletins		1,272.65	
Miscellaneous		563.23	
			$9,920.29
Express and freight:			
Distribution of volumes and reports		$2,686.53	
Miscellaneous		267.15	
			$2,953.68
Special appropriations:			
Committee of Seventeen on Preparation of Teachers		$30.00	
Committee on Moral Education		148.81	
Committee on Exceptional Children		497.10	
Committee on Shortage of Teachers		180.30	
Committee on Industrial Education		202.02	
			$1,058.23
Annual Convention:			
Department expenses		$430.16	
State directors and managers		404.59	
Clerical services:			
Registration bureau		920.65	
Stenographers and typewriter operators		477.28	
			$2,232.68
Badges for Department of Superintendence, Washington Meeting			$ 206.25
Printing:			
Programs		$ 330.00	
Miscellaneous		44.50	
			$ 374.50
Stationery		$47.70	
Telegrams		14.19	
Miscellaneous		1,624.21	
			$1,686.10
Unclassified disbursements:			
Legal services in re. railroad rates (John B. Pine)		$1,145.73	
Legal services and expenses attending Los Angeles convention		1,230.29	
Bonds of Secretary and Treasurer		50.00	
Auditing books of Secretary and Treasurer		30.00	
Refund to Permanent Fund of premium payments to Treasurer		1,112.50	
Desk room at Los Angeles and validation expenses		1,500.00	
Miscellaneous:			
Press clippings	$56.50		
Refunds of duplicate payments	78.00		
Dating stamps	71.75		
Purchase reports Committees of Ten and Fifteen	6.00		
Refund to J. N. Wilkinson	12.00		
		224.25	
			$ 5,274.77
Total disbursements for year			$45,581.12

SUMMARY

Receipts

Balance brought forward from the Treasurer's report for year ending June 30, 1907	$ 2,480.43	
Receipts for year July 1, 1907, to June 30, 1908	45,458.29	
		$47,938.72

Disbursements

Amount transferred to Permanent Fund, as per vouchers Nos. 190, 191	$10,000.00	
Total expenses for the year	35,581.12	
		$45,581.12
Balance in treasury, June 30, 1908		$2,357.60

We, the undersigned Trustees of the National Education Association, hereby approve the above Report of Arthur H. Chamberlain, Treasurer.

Nicholas Murray Butler, *Chairman*
James M. Greenwood
Henry B. Brown
Carroll G. Pearse
Board of Trustees

November 18, 1908

Board of Trustees,
National Education Association of the United States.

Gentlemen: We have audited the books and accounts of the National Education Association of the United States, kept by the Secretary, Irwin Shepard, and the Treasurer, Arthur H. Chamberlain, for the year ending June 30, 1908, and compared them with the relative vouchers and cheques, and find the books to be correct. We compared the Treasurer's records with those kept by the Secretary and find them to be in accord.

We annex herewith a statement of the Receipts and Disbursements for the year under review, which we have checked with the books, and we certify it to be in accordance therewith.

Yours very truly,

The International Audit Company
By (Signed) John McLaren
President

(Signed) Robert Nelson
Certified Public Accountant
Manager

TWENTY-SECOND ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE NATIONAL EDUCATION ASSOCIATION

FOR THE YEAR JULY 1, 1907, TO JULY 1, 1908

CLEVELAND, OHIO, July 1, 1908

To the Board of Directors of the National Education Association:

The Board of Trustees of the National Education Association has the honor to submit the following report on the Permanent Fund of the Association for the year ending June 30, 1908.

The amounts collected as income of the Permanent Fund and the disposition made of the income are shown in the following Income Account.

The changes in the investments held for the Permanent Fund, including payments received on account of principal and new investments, are shown in the following Principal Account.

The present state of the investments held for the Permanent Fund is shown in the following Statement of Securities held for the Permanent Fund.

The Permanent Fund amounts at this date to $170,028.00, having been increased during the year under review by $9,928.00, as follows:

Amount of the Permanent Fund, July 1, 1907			$160,100.00
Transferred from the Treasurer, in accordance with Sec. 7 of the Act of Incorporation	$10,000.00		
Transferred from the Treasurer to cover adjustments of premiums and discounts on former investments (see Statement B)	1,112.50		
		$11,112.50	
Less			
Net reduction in inventory value of Securities, resulting from scheduling them at cost instead of at face value	$1,112.50		
Expenses incident to investments, charged to principal (see Principal Account)	72.00		
		$ 1,184.50	
			$9,928.00
Amount of the Permanent Fund, June 30, 1908			$170,028.00

The item of $1,112.50 is the result of action taken by the Trustees providing that hereafter all securities held for the Permanent Fund shall be entered in the statements of account not at the par value of such securities, but at the price actually paid for the same. Heretofore it has been customary to carry the securities held for the Permanent Fund at their par value and to treat any premium or discount arising in connection with the purchase of securities as either a charge upon, or an addition to, income. The Trustees believe that the policy now adopted is more business-like and sets out the state of the Fund with greater accuracy.

In adjusting the statements of account in this regard, it became necessary to recover from the Treasurer, as shown in Statement B, the sum of $1,112.50, being the excess of discounts over premiums heretofore transferred to him by the Trustees.

Statement A shows the net income of the property at No. 4762 Lake Avenue, Chicago, Illinois, to which title has been taken by the Trustees under proceedings for foreclosure of mortgage. This property is the item reported in the last annual report as the Hord

Mortgage Certificate, valued at $5,500. The Trustees do not intend to hold the property as an investment, but to offer it for sale whenever satisfactory terms can be had.

The operations of the year and the present state of the Permanent Fund are set out in detail in the accounts and statements which follow.

INCOME ACCOUNT

RECEIPTS

$ 7,000	St. Louis and San Francisco R. R. Co. refunding gold bonds, 1951, at 4 per cent		$ 280.00
15,000	Terminal Association of St. Louis, general refunding sinking fund gold bonds, 1953, at 4 per cent		600.00
20,000	Pittsburgh, Lake Erie and West Virginia System refunding gold bonds, 1941, at 4 per cent		800.00
10,000	Oregon Short Line R. R. Co. guaranteed refunding gold bonds, 1929, at 4 per cent.		200.00
8,000	City of New York registered gold bonds, 1957, at 4½ per cent		76.96
2,500	Village of Morgan Park, Illinois, gold bonds, 1911 } at 4½ per cent		157.50
1,000	Village of Morgan Park, Illinois, gold bonds, 1913 }		
2,000	Lemont, Illinois, school bonds, at 5 per cent		100.00
10,000	Chicago drainage bonds, 1916 } at 4 per cent		2,000.00
40,000	Chicago drainage bonds, 1917 }		
9,000	West Chicago park bonds, 1918 } at 4 per cent		760.00
10,000	West Chicago park bonds, 1919 }		
5,000	Bond and mortgage on 5136 Hibbard Ave., Chicago (Ritchie), 1908, at 5 per cent.		250.00
5,000	Bond and mortgage on 5603 Madison Ave., Chicago (Lewis), 1909, at 5 per cent.		250.00
11,000	Bond and mortgage on 5239–41 Cornell Ave., Chicago (Dickinson), 1909, at 4½ per cent		495.00
	Interest to date of payment of principal on bond and mortgage on 5526–28 Jefferson Ave., Chicago, $10,000 at 5 per cent	$506.98	
	Interest to date of payment of principal on Lemont, Ill., school bonds, $500 at 5 per cent	12.50	
	Interest on cash balances in First Trust and Savings Bank, Chicago	178.80	
	Net income of property 4762 Lake Ave., Chicago (see Statement A)	330.24	1,028.52
			$6,997.98

DISBURSEMENTS

Accrued interest on $8,000 of City of New York 4½ per cent. bonds	$ 15.00	
Fee of First Trust and Savings Bank, Chicago, Ill., on investment of $18,000, ¼ of 1 per cent	45.00	
Annual fee of First Trust and Savings Bank, Chicago, Ill., for care of principal of Permanent Fund—⅛ of 1 per cent	195.38	
Net income, paid to the Treasurer of the National Education Association	6,742.60	$6,997.98

PRINCIPAL ACCOUNT

RECEIPTS

Cash on hand for investment, July 1, 1907	$ 6,600.00	
Mortgage on 5526–28 Jefferson Ave., Chicago (Wallace), paid February 15, 1908	10,000.00	
Lemont, Ill., school bonds, paid December 2, 1907	500.00	
Received from Treasurer of the National Education Association, to cover adjustment of premiums and discounts on former investments (see Statement B)	1,112.50	
Received from Treasurer of the National Education Association	10,000.00	$28,212.50

DISBURSEMENTS

$10,000	Oregon Short Line R. R. Co. guaranteed refunding 4 per cent. gold bonds, 1929, $8,000 at 89—$2,000 at 88⅞	$8,895.00	
8,000	City of New York registered 4½ per cent. gold bonds, 1957, at 106½	$8,510.00	
9,000	City of New York 4½ per cent. gold bonds, 1957, at 109	9,810.00	
	Accrued interest on $9,000 New York City bonds	49.50	
	Fee of First Trust and Savings Bank, Chicago, Ill., on investment of $9,000—¼ of 1 per cent	22.50	
	Cash on hand for investment, June 30, 1908	925.50	
			$28,212.50

STATEMENT OF SECURITIES HELD FOR THE PERMANENT FUND JUNE 30, 1908

MUNICIPAL AND SCHOOL BONDS

Par Value	Security	Acquired	Interest	Book Value
$ 8,000	City of New York registered gold bonds, due November 1, 1957	Feb. 29, 1908	4½% May and Nov.	$8,510.00
9,000	City of New York Gold bonds, due November 1, 1957	June 12, 1908	4½% May and Nov.	9,810.00
2,500	Village of Morgan Park, Ill., gold bonds, due November 1, 1911	1895	4½% May and Nov.	2,500.00
1,000	Village of Morgan Park, Ill., gold bonds, due July 1, 1913		4½% Jan. and July	1,000.00
2,000	Lemont, Ill., school bonds, Nos. 22, 24, 30, and 32, payable $500 December 1, yearly	1897	5% June and Dec.	2 000.00
10,000	Sanitary District of Chicago, drainage bonds, Nos. 24,516–24,525, due December 1, 1916	1905	4% June and Dec.	10,000.00
40,000	Sanitary District of Chicago drainage bonds, Nos. 24,591–24,625, 24,636–24.640, due December 1, 1917	1904	4% June and Dec.	40,000.00
9,000	West Chicago park bonds, Nos. 1,101–1,109, due April 1, 1918	July 31, 1906	4% Apr. and Oct.	9,045.00
10,000	West Chicago Park bonds, Nos. 615, 629–631, 1,243–1,248, due April 1, 1919	July 31, 1906	4% Apr. and Oct.	10,075.00
$91,500				$92,940.00

RAILROAD BONDS

Par Value	Security	Acquired	Interest	Book Value
$ 7,000	St. Louis and San Francisco R. R. Co. refunding gold bonds, Nos. 47,435, 47,457, 47,537, 49,012, 49,670, 57,373, 57,514, due July 1, 1951	Jan. 3, 1907	4% Jan. and July	$ 5,775.00
15,000	Terminal Association of St. Louis general refunding sinking-fund gold bonds, Nos. 16,311–16,325 due January 1, 1953	Jan. 30, 1905	4% Jan. and July	15,050.00
20,000	Pittsburgh, Lake Erie & West Virginia System refunding gold bonds, Nos. 13,496–13,500, 21,236–21,250, due November 1, 1941	Jan. 13, 1906	4% May and Nov.	19,942.50
10,000	Oregon Short Line R. R. Co. guaranteed refunding gold bonds, Nos. 4,013–4,017, 4,025–4,027, 4,976, 13,810, due December 1, 1929	Feb. 3, 1908	4% June and Dec.	8,895.00
$52,000				$49,662.50

REAL ESTATE MORTGAGES

Par Value	Security	Acquired	Interest	Book Value
$ 5,000	Bond and mortgage on 5136 Hibbard Ave., Chicago, Ill. (Ritchie), due November 1, 1908	1899	5% May and Nov.	$ 5,000.00
5,000	Bond and mortgage on 5603 Madison Ave., Chicago, Ill. (Lewis), due July 1, 1909	1900	5% Jan. and July	5,000.00
11,000	Bond and mortgage on 5239–5241 Cornell Ave., Chicago, Ill. (Dickinson), due January 1, 1909	1904	4½% Jan. and July	11,000.00
$21,000				$21,000.00

REAL ESTATE

$5,500	4762 Lake Ave., Chicago, Ill. (Hord property)	1907	Rent $30 monthly	$5,500.00
	Cash on hand awaiting investment			$925.50
Total $170,000	Total			$170,028.00

STATEMENT A

PROPERTY AT 4762 LAKE AVENUE (HORD PROPERTY), CHICAGO, ILLINOIS

RECEIPTS		
Rents collected by receiver pending foreclosure	$590.00	
Rents collected by First Trust and Savings Bank of Chicago, Illinois	120.00	
		$710.00
DISBURSEMENTS		
Receiver's charges	$ 52.68	
Attorney for receiver	10.00	
Master's deed	2.00	
Recording deed	1.05	
Title guarantee policy, No. 146,964	31.05	
Fire insurance policy	24.00	
Repairs	43.50	
Taxes and special assessments	209.48	
Fee of First Trust and Savings Bank on $120 rents collected	6.00	
		$379.76
Net income		$330.24

STATEMENT B

PREMIUM AND DISCOUNT ACCOUNT

Date	Item	Dr.	Cr.
January 30, 1905	Premium on $15,000 Terminal Association of St. Louis 4 per cent. bonds	....	$ 50.00
January 13, 1906	Discount on $20,000 Pittsburgh, Lake Erie & West Virginia System 4 per cent. bonds	$ 57.50	....
July 31, 1906	Premium on $19,000 West Chicago Park 4 per cent. bonds	....	120.00
January 3, 1907	Discount on $7,000 St. Louis and San Francisco R. R. Co. 4 per cent. bonds	1,225.00	....
	Balance	....	1,112.50
		$1,282.50	$1,282.50

Respectfully submitted,

NICHOLAS MURRAY BUTLER, *Chairman*
JAMES M. GREENWOOD
HENRY B. BROWN
CARROLL G. PEARSE
Trustees

The above and foregoing is a correct statement of the account of the funds of the National Education Association of the United States from July 1, 1907, to July 1, 1908, as the same appears on the books of this bank.

FIRST TRUST AND SAVINGS BANK
By LOUIS BOISOT
Trust Officer

CERTIFICATE OF EXAMINER OF SECURITIES

CHICAGO, ILL., June 17, 1908

To the Board of Directors of the National Education Association:

GENTLEMEN: I have this day examined the securities belonging to the permanent fund of the National Education Association in custody of the First Trust and Savings Bank, Chicago, and find all the bonds and securities named above, in their possession.

(Signed) ORVILLE T. BRIGHT, *Examiner*

JOURNAL OF PROCEEDINGS

OF THE

FORTY-SIXTH ANNUAL CONVENTION

OF THE

NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

CLEVELAND, O., JUNE 29—JULY 3, 1908

SUNDAY SERVICES

In response to an invitation by the Executive Committee of the National Education Association the following special services on educational topics were held by the pastors of the various churches of Cleveland on Sunday, June 28, as an appropriate introduction to convention week:

"The Twentieth Century; A Century of Education"—Rev. Dr. Dan F. Bradley, Pilgrim Congregational Church.

"Education and Religion"—Rev. Frank DuMoulin, Dean, Trinity Cathedral (Protestant Episcopal).

"Religion in the Public Schools"—Rev. Worth M. Tippy, Epworth Memorial Church.

"Mind, as the Servant of Personality"—Rev. Nathaniel M. Pratt, Plymouth Congregational Church.

"The School Teacher in the Republic"—Rev. Charles Bayard Mitchell, First Methodist Episcopal Church.

"Education as a Factor in National Life"—Rev. Dr. Charles A. Eaton, Euclid Avenue Baptist Church.

"Character in Education"—Rev. William McMahon, Saint Bridget's (Roman Catholic) Church.

"The Catholic Idea of Education"—Rev. Gilbert P. Jennings, St. Agnes (Roman Catholic) Church.

"Moral Education"—Rev. Minot O. Simons, Unity Church.

"Religion in the Public Schools"—Rabbi S. Margolies, Anshe Emeth Congregation.

"The Public School, the Hope of Democracy"—Rev. N. W. Stroup, Windermere Methodist Episcopal Church.

"The Three H's in Education"—Rev. Charles H. Lemmon, North Congregational Church.

"Education, a Power"—Rev. J. J. Tisdall, Crawford Road Christian Church.

"Jesus Christ, the Great Educator"—Rev. Lee H. Richardson, Mayflower Presbyterian Church.

"Education and Its True Aim"—Rev. E. D. Salkeld, Lakewood Christian Church.

"The Value of Knowledge"—Rev. H. C. Hadley, Cedar Avenue Memorial Lutheran Church.

"The Quest of Truth"—Rev. O. Badgley, Pearl Street Methodist Episcopal Church.

"The Highest Education"—Rev. Harvey D. Fleming, Detroit Avenue Methodist Episcopal Church.

"Hearing as One Who Is Taught"—Rev. Charles L. Parker, First Congregational Church, Collinwood.

"The Present Relationship of Education and Christianity"—Dr. Charles F. Thwing, President of Western Reserve University and Adelbert College, Euclid Avenue Congregational Church.

"At the Feet of the Great Teacher"—Rev. E. B. Bagby, Franklin Circle Church of Christ.

"The Relation of the School to Life"—Rev. R. W. Bagnall, St Andrew's Episcopal Church.

"Freedom thru Truth"—Rev. Millard Brelsford, East Cleveland Baptist Church.

"The Method of the Master Teacher"—Rev. Henry Seymour Brown, First Presbyterian Church, East Cleveland.

"Jesus Christ, the Master Mind in Psycho-Physical Development" (morning); "The Bible as a Textbook for Children" (evening)—Rev. R. M. Church, St. John's Protestant Episcopal Church.

"Educational Ends"—Rev. S. DeMiller, Glenville Disciple Church.

"The Missing Factor in Our Public-School System"—Rev. Harold B. Ernsberger, Calvary English Lutheran Church.

"True Education, Some Things It Implies"—Rev. George Extence, Kinsman Congregational Church.

"Principles of Life Which Education Should Develop"—Rev. Milford W. Foshay, Madison Avenue Baptist Church.

"The Complete Life, or Education Plus Religion"—Rev. Charles H. Hauger First Methodist Episcopal Church Mission.

"Our Educational System the Key to Our National Progress"—Rev. F. J. Johnson, Methodist Episcopal Church.

"Christian Training a Necessary Element of True Culture"—Rev. Orin A. Keach, Lakewood United Presbyterian Church.

"Education in Its Relation to the New Patriotism"—Rev. T. E. Lewis, Archwood Avenue Congregational Church.

"The Moral Education of the Child"—Rev. Wilbur C. Mickey, Bethany Presbyterian Church.

"The Liberating Power of Knowledge"—Rev. F. J. Monschke, Fremont Street Baptist Church.

"Teaching and Training"—Rev. F. W. Mueller, First German Methodist Church.

"The Acquiring of Knowledge and Its Use"—Rev. W. A. Myers Scranton Avenue Free Baptist Church.

"Education the Basic Principle of Christianity"—Rev. J. H. Neuhauser Bethany Lutheran Church.

"The Mind and How to Use It"—Rev. R. H. Park, Second United Presbyterian Church.

"The Highest Education"—Rev. Gerard F. Patterson, Church of the Incarnation.

"Our Public Schools"—Rev. Luman H. Royce, Westminster Presbyterian Church.

"Drawing Some Lessons from the National Education Association"—Rev. W. L. Lemon, Superior Avenue Baptist Church.

"The Value of an Education"—Rev. J. Grant Walter, Hough Avenue Reformed Church.

"The Public School—Its Triumph and Its Task"—Rev. Thomas C. Lawrence, Fidelity Free Baptist Church.

"Some Present-Day Tendencies in Education"—Rev. H. F. Stillwell, First Baptist Church.

"Education and the Religious Life"—Rev. R. M. Freshwater, D.D., Woodland Avenue Methodist Episcopal Church.

"Jesus Christ, the Teacher"—Rev. Albert Ehrgott, Cedar Avenue Baptist Church.

"Necessity of Higher Education to the Enjoyment of Life"—Rev. T. Alfred Fleming, Miles Avenue Christian Church.

"The Teacher's Influence in the Church Life of Americans"—Rev. M. L. Buckley, Church of Christ (Disciple), Collinwood.

"The Banefulness of Ignorance"—Rev. H C. Bailey, Antioch Baptist Church.

"Education as a Moral and Religious Factor"—Rev. John H. Blackburn, Lakewood Methodist Episcopal Church.

"Intellectual Integrity"—Rev. Charles Steele Davidson, St. Mark's Episcopal Church.

"The Highest Education"—Rev. Thos. S. McWilliams, Calvary Presbyterian Church.

"The Church and Our Public Schools"—Rev. W. B. Slutz, Franklin Avenue Methodist Episcopal Church.

"The Religious Element in Education"—Rev. Walter R. Breed, D.D., St. Paul's Church.

OPENING SESSION.—MONDAY AFTERNOON, JUNE 29

The forty-sixth annual convention opened in the Hippodrome, at 2:30 P. M., with music by Signor A. Liberati's band.

Invocation by Rev. Paul F. Sutphen, D.D., of the Second Presbyterian Church.

Hon. Samuel Mather, president of the Citizens' Committee of Cleveland, who presided welcomed the Association.

In the absence of Mayor Tom L. Johnson, a welcome on behalf of the city was given by Dr. Harris R. Cooley, director of charities and corrections of the city of Cleveland.

Dr. Charles S. Howe, president of the Cleveland Chamber of Commerce and president of the Case School of Applied Science, extended a welcome on behalf of the business and educational interests of Cleveland.

A Boys' Chorus of five hundred voices, under the direction of J. Powell Jones, sang the "Soldier's Chorus" from *Faust* and the "Intermezzo" from *Cavalleria Rusticana*. Led by the chorus the audience joined in singing "The Light of Learning," a song, words by William Ganson Rose, music by Albert Ross Davison of Cleveland, dedicated to the National Education Association.

In the absence of President Edwin G. Cooley, Nathan C. Schaeffer of Pennsylvania, first vice-president of the Association, was introduced by Chairman Mather and took charge of the meeting.

William O. Thompson, president of Ohio State University, Columbus, was introduced and responded to the addresses of welcome, on behalf of the Association.

The following committee on resolutions was appointed by Acting President Schaeffer:

COMMITTEE ON RESOLUTIONS

Howard J. Rogers, Albany, N. Y.
George M. Philips, West Chester, Pa.
Orville T. Bright, Chicago, Ill.
Charles E. Chadsey, Denver, Colo.
Edgar H. Mark, Louisville, Ky.
David B. Johnson, Rock Hill, S. C.
J. E. Dyche, Guthrie, Okla.

The following resolution, submitted to the Association by the Board of Directors, was adopted by unanimous vote:

Resolved, that in the enforced absence of their President, Superintendent Edwin G. Cooley, the members of the National Education Association testify to their affectionate regard for him, send him cordial greeting across the sea, and confidently look forward to his complete recovery of health and strength.

The remainder of the session being under the auspices of the National Council of Education, the gavel was surrendered to Joseph Swain, Swarthmore, Pa., president of that body.

An address on "Educational Progress for the Year" was delivered by Charles F. Thwing, president of Western Reserve University, Cleveland, O.

SECOND SESSION.—MONDAY EVENING, JUNE 29

The session was called to order by Vice-President W. H. Elson, superintendent of schools, Cleveland.

Invocation by Rev. Charles A. Eaton, D.D., of the Euclid Avenue Baptist Church.

Music by the Ionic Quartet: H. W. Whitney, V. V. Woboril, T. G. Protheroe, B. W. Willard:

"Night Witchery" .... *Storch*
"When the Bird a Pilfering Goes" .... *Kremser*
"Mammy Loo" .... *Cartwright*

The annual presidential address was given by Acting President Nathan C. Schaeffer, upon the subject "Education for Avocation."

An address on "The Problem of Vocational Education in London" was given by Cloudlesley S. H. Brereton, divisional inspector for the County Council, London, England.

Owing to Mr. Brereton's illness, part of the address was read by Howard J. Rogers, first assistant commissioner of education, Albany, N. Y.

Violin solo—"Souvenir de Hayden," by Sol Marcosson, of Cleveland.

An address on "Adaptation of the Schools to Industry and Efficiency" was given by Andrew S. Draper, commissioner of education of the state of New York.

THIRD SESSION.—Tuesday Evening, June 30

Vice-President James H. Baker, president of the University of Colorado, presided.

Invocation by Rev. Gilbert P. Jennings, of St. Agnes Church.

Music—Mendelssohn's "Quartet in D Major," by the Philharmonic String Quartet: Sol Marcosson, first violin; Carl Dueringer, second violin; James D. Johnston, viola; Charles Heydler, cello.

Acting President Schaeffer announced the following Nominating Committee in accordance with sections 3 and 4, Article 2, of the By-Laws:

COMMITTEE ON NOMINATIONS

Ben Blewett, of Missouri, *Chairman*

Alabama	J. W. Abercrombie
Arizona	A. H. McClure
Arkansas	Geo. B. Cook
California	J. F. Chamberlain
Colorado	Z. X. Snyder
Connecticut	Chas. H. Keyes
Delaware	Bird T. Baldwin
District Columbia	W. T. Harris
Florida	Miss Clem Hampton
Georgia	C. B. Gibson
Idaho	S. Belle Chamberlain
Illinois	W. H. Campbell
Indiana	R. J. Aley
Iowa	Wm. Aldrich
Kansas	E. T. Fairchild
Kentucky	H. H. Cherry
Louisiana	Catherine Kelly
Maine	(Vacant)
Maryland	J. H. Van Sickle
Massachusetts	Wm. E. Hatch
Michigan	Luther L. Wright
Minnesota	J. W. Olsen
Mississippi	M. Rose
Missouri	Ben Blewett
Montana	W. F. Book
Nebraska	Geo. L. Towne
Nevada	Romanzo Adams
New Hampshire	H. E. Walker
New Jersey	Miss L. A. Doren
New Mexico	(Vacant)
New York	H. J. Rogers
North Carolina	J. I. Foust
North Dakota	Neil C. Macdonald
Ohio	J. A. Shawan
Oklahoma	David R. Boyd
Oregon	A. E. Breece
Pennsylvania	M. G. Brumbaugh
Rhode Island	W. H. Holmes
South Dakota	H. A. Ustrud
South Carolina	D. B. Johnson
Tennessee	H. W. Louis
Texas	L. E. Wolfe
Utah	Geo. A. Eaton
Vermont	(Vacant)
Virginia	J. L. Jarman
Washington	H. M. Shafer
West Virginia	A. J. Wilkinson
Wisconsin	Chas. McKenny
Wyoming	S. S. Stockwell

Charles R. Van Hise, president of the University of Wisconsin, was introduced and addressed the convention on the subject of "Conservation of the National Resources of the United States."

"The Function of Education in a Democracy" was the subject of an address by Martin G. Brumbaugh, superintendent of schools, Philadelphia, Pa.

Music by the Philharmonic String Quartet:

"Andante Cantabile"	*Tschaikowsky*
"Serenade Badine"	*Gabriele Marie*

Booker T. Washington, president of Tuskegee Institute, Alabama, spoke on "Negro Education and the Nation."

FOURTH SESSION.—Wednesday Afternoon, July 1

The session was called to order at 2:30 o'clock by Vice-President N. C. Schaeffer.

Invocation by Rev. Charles Bayard Mitchell, D.D., of the First Methodist Episcopal Church.

Music by the Boys' Chorus:
Holy City.......................................*Adams*
Killarney.......................................*Balse*

Miss Sarah Louise Arnold, dean of Simmons College, Boston, Mass., read a paper on "Reconcilement of Cross-Purposes in Education of Women."

Miss Jane Addams of Hull House, Chicago, spoke on "The School and the Immigrant Child."

Violin solo by Louis Rich:
"Adoration" .... *Borowski*
"Zigeunerweisen" .... *Saraste*

"The School and the Practice of Ethics" was the subject of a paper by Mrs. Ella Flagg Young, principal of Chicago Normal School.

FIFTH SESSION.—Friday Morning, July 3

The closing session of the convention was called to order at 9:30 A.M. by Vice-President Schaeffer.

Invocation by Rev. Frank DuMoulin, LL.D., of Trinity Cathedral.

Violoncello solo by Charles Heydler:
Andante from Concerto.........................*Golterman*
Capriccio .... *Goetz*

Andrew F. West, dean of the graduate school, Princeton University, spoke on "The Personal Touch in Teaching."

Vocal Solo by Miss Delta A. Harris:
Der Tod und das Mädchen.......................*Schubert*
Blackbird Song................................*Cyril Scott*

William H. Maxwell, superintendent of schools of New York City, delivered the closing address of the convention, on "The Personal Power of the Teacher in Public-School Work."

Vice-President Schaeffer: The last three years have indeed been critical years for the National Education Association. During those three years it has passed thru fire and earthquake, it has faced the perplexities of Congress and of disturbed railroad conditions. I rejoice in the fact that Congress has given the Association a new charter guaranteeing the security of its invested funds and the continuation of its usefulness. The National Council of Education has been rejuvenated and enlarged. The various departments have grown in popularity and effectiveness, and the general sessions of the Association have taxed the capacity of the largest auditoriums. The city of Cleveland has surpassed itself and all of its former efforts in the hospitality and the provisions for meetings extended to this Association.

I cannot refrain from expressing my profound gratitude to persons in all parts of the United States for helping us in the last three years to bring the Association thru its critical period into the new era which has just dawned.

I have very great pleasure in passing the gavel over to the President-elect, Lorenzo D. Harvey of Menomonie, Wis., and I bespeak for him the same cordial, loyal support that has been accorded to all of his predecessors by the members of the National Education Association.

President Harvey: Members of the Association, I wish to express to you as well as I am able, my sense of the honor extended to me as a humble member of this Association, chosen as your servant to render such service as I may during the ensuing year; and I assure you that with the sense of appreciation of the honor is an equal sense of the appreciation of the responsibilities that go with it. This sense of appreciation and of responsibility grows out of a somewhat intimate knowledge of the work—the magnificent work—done by this Association, by the able men who have preceded me in this position, emphasized by the high standards that have been set at this great meeting of the Association. I regard this Association as the most potent influence in the shaping, molding, and directing of the educational forces of this country. In its ranks are the men and women who are the leaders of the educational world. In our meetings—in the general sessions, in the departments, in the reports of committees—we have considered, discussed, and brought out conclusions from which come clearer ideas, more definite purposes, higher standards, better organizations for the educational forces of this country. In such an organization as this, standing for these things, there is no place for private or personal ambition or petty, private interests. It is the individuals who give generous service, and that in the very highest degree, who have made this Association what it is. With such a view of this Association you may understand my sense of responsibility. I beg to say to you that whatever service I may be able to render shall be cheerfully given. And I ask—as I know I shall receive—the hearty co-operation of every member of this Association, during the short time I shall serve you, to further the ends for which it exists.

After music by the Fisk Jubilee Singers, Acting President Schaeffer declared the forty-sixth annual convention of the National Education Association adjourned.

Irwin Shepard, *Secretary*

MINUTES OF ANNUAL BUSINESS MEETING OF ACTIVE MEMBERS

CLEVELAND, OHIO—12 M., WEDNESDAY, JULY 1, 1908

The meeting was called to order in the Old Stone Church by Vice-President Nathan C. Schaeffer.

The minutes of the last meeting of active members were, upon motion, approved, without reading, as printed in the volume of *Proceedings* for 1907.

The report of the Board of Trustees was presented, and on motion, accepted and adopted.

The Treasurer, Arthur H. Chamberlain, gave a synopsis of his report. Upon motion, the Treasurer's report was accepted and adopted.

CHAIRMAN SCHAEFFER: Consideration of the amendments to the By-Laws, proposed at the meeting of active members, July 10, 1907, is in order.

The first amendment is that Article 5, section 2, of the By-Laws be amended to read:

SEC. 2. The Council shall consist of one hundred and twenty members, selected from the membership of the Association. Any member of the Association identified with educational work is eligible to membership in the Council.

JOSEPH SWAIN, Swarthmore, Pa.: I am in favor of increasing the membership of the Council, but I doubt the wisdom of doubling it. In a body of this character the best work is done, as a rule, with small numbers. But it is true that this Association is much larger than when the present number was determined, and that a larger membership would be more representative. I suggest that the number be either seventy-five or ninety. If we find that the larger number increases the efficiency of the Council in the work of education, a further increase can then be made. If, however, we should find a membership of one hundred and twenty not as efficient as a smaller number, it would not be so easy to decrease, as it is to increase, the number.

CARROLL G. PEARSE, Milwaukee, Wis.: At the time of the formation of the National Council, the National Educational Association had only a few hundred members. As the Association has grown, the Council has remained at the original number. There has been a feeling for a number of years that the Council should include a larger number of the members of the Association. With this new blood and new strength added, its work can be done more effectively. This work is done thru committees whether the membership is sixty or one hundred and twenty. With the active membership of this Association running into the thousands, I believe that to limit the Council to less than one hundred and twenty is to limit it unnecessarily and unwisely. For these reasons I introduced last year this amendment to double the membership of the Council, and I most earnestly hope it may prevail. I move that the amendment be adopted. Motion seconded.

JAMES M. GREENWOOD, Kansas City, Mo.: I believe that this movement to double the present membership is a wise one. With the larger number divided into committees it will be possible to secure a greater efficiency since more questions can be considered.

GRACE C. STRACHAN, Brooklyn, N. Y.: I wish to ask how the present Council is selected, and how the other sixty will be selected.

CHAIRMAN SCHAEFFER: At present five are selected by the Council and five by the Board of Directors each year. If the number is to be increased, the method of the selection of additional members will have to be determined.

The motion to amend Article 5, section 2, was then carried.

CHAIRMAN SCHAEFFER: The second amendment is that section 3 of the same article be amended to read:

SEC. 3. The Board of Directors shall annually elect ten members, and the Council shall elect ten members, each member to serve for six years, or until his successor is elected.

Moved to adopt the amendment; seconded.

CHAIRMAN SCHAEFFER: I should like to call attention to the fact that this amendment if adopted will increase the number gradually and that we would not at once have the full one hundred and twenty. Is this the purpose of the motion to amend?

After discussion by several members Mr. Pearse moved to amend the amendment by adding the words:

> At the meeting of 1908 enough additional members shall be elected in the same manner to make the total number of members one hundred and twenty. The terms of the members so elected shall expire as follows: one-sixth in one year, one-sixth in two years, one-sixth in three years, one-sixth in four years, one-sixth in five years, one-sixth in six years.

Seconded.

JOHN W. COOK, DeKalb, Ill.: I do not believe the motion to amend the proposed amendment is in order. According to the By-Laws it is necessary to give notice of a new amendment one year in advance. An amendment thus previously proposed cannot be changed without making it substantially a new amendment.

MR. GREENWOOD: It is not necessary to give notice of a change in an amendment. An amendment proposed in a previous year may be changed in any way desired by the majority of active members not contrary to the original intention and may then be adopted.

CHAIRMAN SCHAEFFER: The chair rules that Mr. Greenwood's position is correct. Any other interpretation would enable any member by offering an amendment to prevent action for a year on an amendment duly proposed.

The motion was then carried.

The amendment to Article 5, section 3, as amended, was then on motion adopted.

CHAIRMAN SCHAEFFER: The next item on the docket is a report of progress by the Committee on the Establishment of a National University in Washington, D. C., by President Charles R. Van Hise, a member of the Committee.

PRESIDENT VAN HISE: Since President Wheeler, the chairman, and President Angell of the Committee are not present, it devolves upon me to make this report. The National Association of State Universities appointed a similar committee for a like purpose, which committee consists of President James, of Illinois State University, President Thompson, of the Ohio State University, and President Baker, of Colorado State University. It was obvious that it would be an advantage for these two committees to co-operate. They therefore met together in Washington and agreed upon a bill, of which I shall read a part. (Reads sections 1 to 7 inclusive of Bill H. R. 19,465.)

Sections 8, 9, 10, 11, 12, 13, and 14 are concerned with the method of government under the Advisory Council and the trustees. I need not read those sections for I can state the points in a moment. The trustees are the active corporation and they will control the university. The Advisory Council has the vetoing power to the extent of suspending the action of the trustees unless the trustees again pass the same ordinance by a three-fourths vote. By this method the whole authority is finally vested in the trustees, but these trustees may be checked for a time by the Advisory Council, and the Council may bring measures before them for their instruction. It is believed that full authority should remain in one body but that great advantage could be obtained from having an Advisory Council which would represent every state in the Union. The two features in this bill to which I need to call your especial attention are that no student shall be admitted until he shall have received the degree of Master of Arts or Science, or an equivalent training. It is the purpose to create strictly a graduate university. It is believed that there is at the present time no necessity for the national government to undertake the maintenance of an undergraduate university. It is well understood by your committee that there are a number of universities in this country that can maintain graduate schools. It is believed that by far the larger number of colleges and universities should not undertake to maintain graduate schools. Therefore it is proposed to make this university an advanced institution which will take the students from the colleges and universities of the country, wherever they may be, to do the advanced work. No degree, however, is to be granted. It is the purpose to encourage the local universities and the colleges and universities by giving them the opportunity to confer the higher degrees, such as Doctor of Philosophy, upon their own students. For instance, if there is a college in Illinois or Ohio, let them maintain work to the point of giving training to the Master of Arts degree; let that student go to the National University and get the training which will entitle him to the degree of Master of Science, the National University will certify back to the original institution from which the student came, and the institution will grant the degrees. There is a concurrence on the part of a very large number of institutions in this plan. Some few institutions that maintain strong graduate schools are doubtful about it.

Chairman Schaeffer: What action do you recommend us to take today?

President Van Hise: It seems to me that the number of students for advanced work will become greater, if the great opportunities at Washington may be taken advantage of for this work. We now have students by the hundreds doing the work for Doctors of Philosophy, but we ought to have students by the thousands. If this bill meets with the approval of the active members present it should be approved in its principles, and the committee continued. I make that suggestion; but as a member of the committee I do not feel like making a motion.

E. O. Vaile, of Illinois: I move we approve the principles of that bill and continue the committee to work in its behalf. Seconded and carried without discussion.

The report of the Committee on Nominations was then presented by its chairman, Ben Blewett, of St. Louis, Mo.

Mr. Blewett: The nominating committee met at the time appointed, 44 members being present. The following mode of procedure was agreed upon: that, credentials having been established, the roll of states should be called for nominations to the presidency and other offices; that a majority of those voting should decide the nomination; that, should more than two names be presented for any office, after a second ballot the name having the lowest number of votes should be withdrawn. Three states presented names for the presidency. On the fourth ballot, one name received a majority of the votes. Immediately, upon motion of the other states presenting candidates, the nomination was made unanimous. In all other cases the action of the committee was by unanimous vote.

I have the honor to present the following nominations for your consideration:

REPORT OF COMMITTEE ON NOMINATIONS

President	L. D. Harvey	Menomonie, Wis.
First Vice-President	Edwin G. Cooley	Chicago, Ill.
Vice-Presidents		
	John C. Byrnes	New York, N. Y.
	Arnoldas H. McClure	Yuma, Ariz.
	Carleton B. Gibson	Columbus, Ga.
	Joseph Rosier	Fairmont, W. Va.
	Jasper L. McBrien	Lincoln, Neb.
	George N. Philips	West Chester, Pa.
	Benjamin F. Moore	Marion, Ind.
	Charles Evans	Ardmore, Okla.
	James A. Edwards	Dubuque, Ia.
	George H. Martin	West Salem, Mass.
	Katherine L. Craig	Denver Colo.
Treasurer	Arthur H. Chamberlain	Pasadena, Cal.

STATE DIRECTORS

Alabama	John W. Abercrombie	University
Arizona	A. J. Matthews	Tempe
Arkansas	George B. Cook	Little Rock
California	Duncan MacKinnon	Stockton
Colorado	Charles E. Chadsey	Denver
Connecticut	Charles H. Keyes	Hartford
Delaware	George W. Twitmyer	Wilmington
District of Columbia	W. T. Harris	Washington
Florida	Miss Clem Hampton	Tallahassee
Georgia	Carleton B. Gibson	Columbus
Idaho	Walter R. Siders	Pocatello
Illinois	Walter R. Hatfield	Chicago
Indiana	Thomas A. Mott	Richmond
Iowa	Frank L. Smart	Davenport
Kansas	John MacDonald	Topeka
Kentucky	W. H. Bartholomew	Louisville
Louisiana	Warren Easton	New Orleans
Maine	Payson Smith	Augusta
Maryland	N. Bates Stephens	Annapolis
Massachusetts	Irving O. Palmer	Newtonville
Michigan	David McKenzie	Detroit
Minnesota	S. L. Heeter	St. Paul
Mississippi	E. E. Bass	Greenville
Missouri	John R. Kirk	Kirksville
Montana	S. D. Largent	Great Falls
Nebraska	Albert A. Reed	Lincoln
Nevada	Romanzo Adams	Reno
New Hampshire	Henry C. Morrison	Concord
New Jersey	John Enright	Freehold
New Mexico	R. R. Larkin	Las Vegas
New York	Augustus S. Downing	Albany
North Carolina	Isaac C. Griffin	Salisbury
North Dakota	B. A. Dunbar	Park River
Ohio	William McK. Vance	Delaware
Oklahoma	E. D. Cameron	Guthrie
Oregon	J. H. Ackerman	Salem
Pennsylvania	Reed B. Teitrick	Harrisburg
Rhode Island	Herbert W. Lull	Newport
South Carolina	David B. Johnson	Rock Hill
South Dakota	Freeman H. Hoff	Mitchell
Tennessee	I. C. McNeill	Memphis
Texas	Cree T. Work	Denton
Utah	William Allison	Ogden
Vermont	Mason S. Stone	Montpelier
Virginia	Joseph L. Jarman	Farmville
Washington	Edward T. Mathes	Bellingham
West Virginia	Robert A. Armstrong	Morgantown
Wisconsin	Charles P. Cary	Madison
Wyoming	Archibald D. Cook	Cheyenne

Upon motion the Secretary was instructed to cast the ballot of the Association for the candidates named. The ballot was so cast and the nominees declared elected.

The report of the Committee on Resolutions was presented by the chairman, Howard J. Rogers, Albany, N. Y., who moved its adoption.

DECLARATION OF PRINCIPLES

The National Education Association, now holding its Forty-sixth Annual Convention in Cleveland, and representing teachers and friends of education in every state in this Union, makes the following declaration of principles and aims:

1. Fully realizing that trained and skilled labor is a primary essential to the industrial and commercial welfare of the country, we cordially indorse the establishment by municipal boards of education of trade schools, industrial schools, and evening continuation schools; and further recommend that the instruction in these schools be practical and

efficient, and have the advice and the approval of the trade interested, to the end that graduates of these schools may at once become advanced apprentices or journeymen.

2. We recommend the subordination of highly diversified and overburdened courses of study in the grades to a thorough drill in essential subjects; and the sacrifice of quantity to an improvement in the quality of instruction. The complaints of business men that pupils from the schools are inaccurate in results and careless of details is a criticism that should be removed. The principles of sound and accurate training are as fixed as natural laws and should be insistently followed. Ill-considered experiments and indiscriminate methodizing should be abandoned, and attention devoted to the persevering and continuous drill necessary for accurate and efficient training; and we hold that no course of study in any public school should be so advanced or so rigid as to prevent instruction to any student, who may need it, in the essential and practical parts of the common English branches.

3. We assert that the individuality of the pupil should be carefully considered, to the end that he may be instructed in the light of his limitations and capacity; and we commend to all local authorities the necessity of greater care in the arrangement of courses of study, that they may be adapted to the pupils to be instructed, rather than that pupils should be adapted to fixed courses of study and an inflexible system of grading.

4. There is concededly a grave moral depression in our business and social atmosphere. The revelations of the financial and legislative world for the past two years denote a too general acquiescence in questionable practices and standards. We earnestly recommend to boards of education, principals, and teachers the continuous training of pupils in morals, and in business and professional ethics, to the end that the coming generation of men of affairs may have a well-developed abhorrence of unfair dealing and discrimination. The establishment of the honor system in schools, the ostracism of the dishonest or unfair pupil, the daily exemplification in the routine life of the school of the advantage of honest and truthful methods, are commended to the especial attention of teachers as a partial means to this end.

5. The Bureau of Education at Washington should be preserved in its integrity and the dignity of its position maintained and increased. It should receive at the hands of Congress such recognition and such appropriations as will enable it not only to employ all expert assistants necessary, but also to publish in convenient and usable form the results of investigations; thus making that department of our government such a source of information and advice as will be most helpful to the people in conducting their campaigns of education. We are of the opinion that the importance of the subject under its control, and the dignity of this country require that this Bureau be maintained as an independent department of the government.

6. The National Education Association notes with approval that the qualifications demanded of teachers in the public schools are increasing annually, and particularly that in many localities special preparation is demanded of teachers. The idea that anyone with a fair education can teach school is gradually giving way to the correct notion that teachers must make special preparation for the vocation of teaching. The higher standards demanded of teachers must lead logically to higher salaries for teachers, and constant efforts should be made by all persons interested in education to secure for teachers adequate compensation for their work.

7. It is the duty of the state to provide for the education of every child within its borders, and to see that all children obtain the rudiments of an education. The constitutional provision that all tax-payers must contribute to the support of the public schools logically carries with it the implied provision that no persons should be permitted to defeat the purposes of the public-school law by forcing their children, at an early age, to become bread-winners. To this end the child-labor and truancy laws should be so harmonized that the education of the child, not its labor, shall be made the chief concern.

8. The National Education Association indorses the increasing use of school buildings for free vacation schools and for free evening schools and lecture courses for adults, and for children who have been obliged to leave the day school prematurely. We also approve of the use of school grounds for playgrounds and the use of school gymnasiums and bathrooms for the benefit of the children in the crowded districts during summer.

9. Local taxation, supplemented by state taxation, presents the best means for the support of the public schools, and for securing that deep interest in them which is necessary to their greatest efficiency. State aid should be granted only as supplementary to local taxation, and not as a substitute for it.

10. The National Education Association observes with great satisfaction the tendency of cities and towns to replace large school committees or boards which have exercised executive functions thru subcommittees, by small boards which determine general policies, but intrust all executive functions to salaried experts.

11. We cannot too often repeat that close, intelligent, judicious supervision is necessary for all grades of schools.

12. The rapid establishment of rural high schools and the consolidation of rural district schools are most gratifying evidences of the progress of education. We believe that this movement should be encouraged until the children of rural communities enjoy the benefits of public education to an extent approximating as nearly as practicable the education furnished in urban communities.

13. The National Education Association wishes to record its approval of the increasing appreciation among educators of the fact that the building of character is the real aim of the schools and the ultimate reason for the expenditure of millions for their maintenance. There are in the minds of the children and youth of today a tendency toward a disregard for constituted authority, a lack of respect for age and superior wisdom, a weak appreciation of the demands of duty, a disposition to follow pleasure and interest rather than obligation and order. This condition demands the earliest thought and action of our leaders of opinion and places important obligations upon school boards, superintendents, and teachers.

14. It is apparent that familiarity with the English Bible as a masterpiece of literature is rapidly decreasing among the pupils in our schools. This is the direct result of a conception which regards the Bible as a theological book merely, and thereby leads to its exclusion from the schools of some states as a subject of reading and study. We hope for such a change of public sentiment in this regard as will permit and encourage the reading and study of the English Bible, as a literary work of the highest and purest type, side by side with the poetry and prose which it has inspired and in large part formed.

15. The National Education Association wishes to congratulate the secondary schools and colleges of the country that are making an effort to remove the taint of professionalism, and other abuses, that have crept into students' sports. This taint can be removed only by leading students, alumni, and school faculties to recognize that inter-school games should be played for sportsmanship and not merely for victory.

16. It is important that school buildings and school grounds should be planned and decorated so as to serve as effective agencies for educating, not only the children, but the people as a whole, in matters of taste. The school is becoming more and more a community center, and its larger opportunities impose new obligations. School buildings should be attractive as well as healthful, and the adjoining grounds should be laid out and planned with appropriateness and beauty.

17. The highest ethical standards of conduct and of speech should be insisted on among teachers. It is not becoming that commercialism or self-seeking should shape their actions, or that intemperance should mark their utterances. A code of professional conduct clearly understood and rigorously enforced by public opinion is being slowly developed, and must one day control all teachers worthy of the name.

18. In teaching, as in every other kind of work, the best service is secured by finding the individual best fitted to the particular place as indicated by training, experience, and meritorious service; the National Education Association therefore heartily approves a merit system of promoting teachers and filling vacancies. We assert, furthermore, that the grounds upon which a teacher may apply for a position are preparatory training, experience, and meritorious service—in a word, professional fitness, alone; and that the use of other personal and political arguments to secure appointment is deplorable in the teacher and a serious menace to a high professional standard.

The foregoing principles and aims have been fully considered by the committee and unanimously recommended to the Active Members of the National Education Association for adoption.

Respectfully submitted,
HOWARD J. ROGERS, of New York, *Chairman*
ORVILLE T. BRIGHT, of Illinois
CHARLES E. CHADSEY, of Colorado
EDGAR H. MARK, of Kentucky
GEORGE M. PHILIPS, of Pennsylvania
DAVID B. JOHNSON, of South Carolina
Committee on Resolutions

The motion to adopt the declaration of principles was seconded and carried.

The following resolutions were also presented by the Committee on Resolutions for the consideration of the Association:

1. *Resolved:* That the thanks of the National Education Association are due and are hereby most cordially tendered to the residents of Cleveland for their courteous reception and generous hospitality; and to the teachers of Cleveland and the state of Ohio for their splendid support and entertainment.

2. *Resolved:* That the thanks of the National Education Association be tendered the following gentlemen for their active and efficient interest in the welfare and entertainment of the Association: F. F. Prentiss, chairman Executive Committee, Cleveland Local Organization; Samuel Mather, president Citizens Committee; E. H. Baker, chairman Committee on Publicity; S. M. Bond, chairman Committee on Halls and Headquarters; Rev. Dan F. Bradley, chairman Committee on Reception; N. D. Chapin, chairman Committee on Transportation; William H. Elson, chairman Committee on Membership; F. H. Haserot, chairman Advisory Committee; William H. Hunt, chairman Entertainment Committee; George W. Kinny, chairman Committee on Decorations and Badges; Thomas P. Robbins, chairman Committee on Accommodations; Col. J. J. Sullivan, chairman Committee on Finance; and also to William G. Rose, executive secretary of the Local Executive Committee, and his able corps of assistants.

3. *Resolved:* That the thanks of the Association be tendered to First Vice-President and ex-President Nathan C. Schaeffer, of Pennsylvania, Superintendent William H. Elson, of Cleveland, and James H. Baker of Colorado, for presiding over the meetings of this Association in the absence of our esteemed President, Edwin G. Cooley, to whom the greetings and good wishes of our members have already been cabled.

4. *Resolved:* That the public high schools should not be chiefly fitting schools for higher institutions, but should be adapted to the general needs, both intellectual and industrial, of their students and communities, and we suggest that the higher institutions may wisely adapt their courses to this condition. We also suggest to school boards and superintendents the importance of securing for their high schools teachers who have not only abundant scholarship but also successful experience in teaching or efficient and practical training in pedagogy.

Upon motion the resolutions were adopted.

The following telegram was read:

SANTIAGO, CHILE, S. A.

President Cooley, Cleveland, O.:

Cordial greetings Chilian National Education Association.

DR. FERNANDEZ

The chairman was on motion directed to make suitable reply.

E. B. COX, Xenia, Ohio: The published minutes of last year's meeting show that in the report of the Committee on Resolutions there was one resolution which was adopted by the Association by standing vote by a large majority—209 to 23 I believe—the legality of the vital part of which was questioned. It was the resolution approving the work of the Simplified Spelling Board, and directing that the simplified spellings contained in its first recommendation be used in the publications of this Association. The Secretary did not feel bound by the direction expressed in this resolution. The action was taken at one of the general sessions. The question was raised whether it was in accordance with the constitution of the National Education Association for the Association in a general session to pass such amendatory resolution. I do not rise to touch this question at all, but simply to submit in substance the mandatory part of last year's resolution to this regular and formal meeting of active members in order that the evident sentiment of a clear majority of this organization may be expressed with such legality and supreme authority that the Secretary will feel obliged to obey it. Therefore I submit this resolution:

Resolved: That the Secretary is hereby directed to use in the publications of this Association the simplified spellings recommended by the Simplified Spelling Board in its circular of March 21, 1906.

It was moved, seconded, and carried, that the resolution be laid on the table.

CHAIRMAN SCHAEFFER: The committee, appointed at the Los Angeles meeting, on the Juvenile Educational Conference has submitted a report with the request that it be printed, but not read. If there is no objection this will be done.

REPORT OF COMMITTEE ON JUVENILE EDUCATIONAL CONFERENCE

Your committee appointed at the Los Angeles meeting begs leave to submit the following report:

For the better harmonizing of the child-labor and the truancy laws of the several states and of the country, so that the education of the child rather than its labor should be made the chief end of such statutes, an informal conference was held at Middle Bass Island, Lake Erie, August 17, 1907.

The resolution under which the conference was held had been adopted by the Ohio School Improvement Federation, the Ohio Teachers' Association, and the National Education Association, and representatives of these and of other organizations took part in the meeting. The members of the conference were C. J. Bell, a former governor of Vermont, now a member of the Executive Committee of the National Grange, E. B. Norris, of New York, chairman of the Executive Committee of the National Grange, George P. Hampton, of New York City, F. A. Derthick, master of the Ohio State Grange, Mrs. Mary E. Lee, Grange correspondent of agricultural papers, Mrs. Sarah E. Hyre, a member of the Board of Education of Cleveland, Ohio, George E. Pomeroy, president of the Ohio State Board of Commerce, C. D. Forestone of the Carriage Builders' National Association, Mrs. Mary C. Snyder, secretary of the National Tax Association, and Walter D. McKinney, commissioner of the Columbus Industrial Alliance of Columbus, Ohio.

E. G. Cooley, superintendent of the public schools of Chicago, and W. H. Elson, superintendent of the public schools of Cleveland, who had been appointed delegates to the conference by the National Education Association, were unable to attend because of their absence in California. James W. Van Cleave, president of the National Manufacturers' Association, also was unable to attend the conference but sent a letter saying that there is no doubt of the fact that "industrial education for the American boy is one of the greatest, if not the greatest problem, that confronts the republic at this time."

In explaining the purpose of the conference it was stated that unrelated action had been taken at different times by the National Grange, the National Education Association, and the National Manufacturers' Association favoring measures for the improvement of the common-school system of the country with the direct purpose of enabling all children, during their school age, to acquire the particular kind of education that will best fit them to follow their naturally selected vocations and secure engagements in profitable employments. To this end, as far as possible, efforts should be made to combine the employment of children, during out-of-school hours, vacation time, and the habit-forming period from 14 to 18 years of age, with the school system in a way to make employment as well as study a part of the educational system by placing all children, when employed as well as when in school, under the supervision of a school-district officer. After full and careful consideration, the conference adopted the following:

1. It is the sense of this conference that a permanent co-operative conference committee should be formed composed of three delegates each, representing the National Grange, the National Manufacturers' Association, the National Education Association, the National Tax Association, the Carriage Builders' National Association, for the purpose of supplying a medium through which said organizations can co-operate to secure practical results in line with their desires to make the education of children of a character that will best fit them for the vocations they are most likely to desire to follow, and for profitable employment.

2. That the common-school system should be employed to provide, as far as possible, for the teaching in all elementary schools of the mechanical, agricultural, and domestic arts and sciences, with the direct purpose of fitting children as fully as possible for profitable employment in the vocations they are most likely to follow.

3. That the taxation systems of the states should be revised with the purpose of furnishing ample support and facilities of every necessary kind for making effective the purposes in view, and especially with the view of so providing for schools in poor districts that they will be as well equipped and effective as the schools in districts having greater wealth.

4. That the persons participating in this conference submit these propositions to their various organizations, at the next annual meeting of the same, with the view of securing action that will enable such organizations to be represented officially in a permanent co-operative conference committee designed to secure necessary legislative action to carry its propositions into practical effect.

5. That such other organizations having similar ends in view, as may be approved by the Committee on Preliminary Organization, be invited to be represented in this permanent Co-operative Conference Committee.

The following resolution relating to a preliminary committee on organization was adopted:

Resolved. That a Preliminary Committee on Organization, composed of five members, be created with power to have full charge of the work to be undertaken until the permanent Co-operative Conference Committee is organized.

The following persons were elected members of the Preliminary Committee on Organization: ALLEN RIPLEY FOOTE, President of the National Tax Association, *Chairman;* E. B. NORRIS, chairman of the Executive Committee, National Grange; W. H. ELSON, superintendent of Public Schools, Cleveland, vice-president of the National Education Association; C. D. FIRESTONE, treasurer of the Ohio Board of Commerce and member of the Carriage Builders' National Association; JAMES W. VAN CLEAVE, president of the National Manufacturers' Association, or to be named by him.

Respectfully submitted,
W. H. ELSON
Representing the National Education Association

Suggestions were made expressing the desire of the members that, in the choice of additional members of the National Council, the disparity in the proportion between men and women members be reduced.

The meeting then adjourned.

IRWIN SHEPARD, *Secretary*

NATHAN C. SCHAEFFER
First Vice-President, presiding

MINUTES OF THE MEETING OF THE BOARD OF DIRECTORS FOR 1907-1908

CLEVELAND, OHIO, June 29, 1908

The annual meeting of the Board of Directors was called to order in the Cleveland Coal Club room, Hollenden Hotel, at 11:00 A. M. by Acting President Nathan C. Schaeffer. Thirty-one directors responded to roll-call.

The reading of the minutes of the last meeting, held July 12, 1907, was dispensed with and the minutes were approved as printed in the volume of *Proceedings* of the Los Angeles meeting.

The resignations of three directors were received and upon their nomination the following were appointed to fill the unexpired term:

Romanzo Adams, of Nevada, to succeed J. E. Stubbs, resigned.
L. L. Friend, of West Virginia, to succeed Thomas C. Miller, resigned.
Harry M. Schafer, of Washington, to succeed E. T. Mathes, resigned.

The following resolution presented by Nicholas Murray Butler was on motion approved and recommended for adoption by the Association at its first general session:

Resolved, that in the enforced absence of their President, Superintendent Edwin G. Cooley, the members of the National Education Association testify to their affectionate regard for him, send him cordial greetings across the sea, and confidently look forward to his complete recovery of health and strength.

The Annual Report of the Board of Trustees for the year July 1, 1907, to June 30, 1908, was presented by Nicholas Murray Butler, chairman of the Board of Trustees, and printed copies of the same were distributed to the directors.

Chairman Butler called attention to certain changes adopted by the Board in the form of the annual report providing for a distinct classification of all receipts and disbursements under "Income" and "Principal" accounts, the addition of a "Premium and Discount" account, and also a method of entry by which the par value and the book value of each security is shown.

The report showed that $10,000 had been added to the permanent fund during the year from the proceeds of the Los Angeles meeting.

The report was on motion adopted and ordered printed in the annual volume of *Proceedings.*

The report of the Treasurer, A. H. Chamberlain, of Pasadena, Cal., for 1907-8 was presented and printed copies of the same were distributed. On motion this report was received and referred to the Board of Trustees for audit and approval.

The following communication was presented by J. M. Greenwood, chairman of the Committee of the National Council on Investigations and Appropriations.

To the Directors of the National Education Association:

The Committee on Investigations and Appropriations recommends the adoption of the following resolutions by the Board of Directors:

1. *Resolved*, that in view of the present unsettled condition of the finances of the National Education Association, due to the confusion which has arisen from a change of policy by the railroads of the country regarding convention rates, the policy of the National Education Association in granting appropriations for the investigation of special educational problems shall be and hereby is discontinued.

2. *Resolved*, that the President of the National Education Association be authorized and empowered to appoint a special committee to memorialize the Congress of the United States in favor of granting the request of the Commissioner of Education, approved by the Secretary of the Interior, for an annual appropriation to meet the cost of educational investigations under the direction of the Bureau of Education.

3. *Resolved*, that upon the favorable report of the Committee on Investigations and Appropriations the Board of Directors will consider and if approved will recommend to the Commissioner of Education projects for educational investigations brought forward by any department or committee of the National Education Association.

Respectfully submitted,

JAMES M. GREENWOOD, *Chairman*
NICHOLAS MURRAY BUTLER
FRANK A. FITZPATRICK
AUGUSTUS S. DOWNING
J. H. PHILLIPS
L. D. HARVEY

After brief discussion the above resolutions were on motion adopted by a unanimous vote.

Director Charles H. Keyes presented a brief report from the Committee on Manual Training Courses in Public Schools, for the expenses of which an appropriation of $500 was made by the Board of Directors at its meeting in Los Angeles, July 12, 1907. For reasons which were stated the committee had not been organized until February, 1908, and had, as yet, only determined upon its plans for investigation of the subjects referred to it. Director Keyes stated that very little of the appropriation for expenses had been expended and requested that special action be taken extending the time by one year within which the appropriation might be available. On motion it was so ordered.

Secretary Irwin Shepard then made a brief statement regarding the difficulties which had arisen in securing the usual reduced rates and ticket conditions for the Cleveland convention. In view of the fact that the railroads had declined longer to continue the policy of limiting convention rates to bona fide members of the Association holding the convention, it was urged that the board of Directors and the officers of the Association, co-operating with the active members, should take steps to increase the active membership of the Association rather than to depend for revenue upon the fees of associate members attending the annual conventions. This subject was discussed at some length and a general agreement expressed favoring the policy proposed, altho no definite action was taken by the Board of Directors.

There being no further business the Board of Directors adjourned.

IRWIN SHEPARD, *Secretary*

MINUTES OF THE MEETING OF THE NEW BOARD OF DIRECTORS FOR 1908–1909

CLEVELAND, OHIO, July 2, 1908

The meeting of the new Board of Directors of the National Education Association for the year 1908–9 was called to order by President-elect L. D. Harvey at 4:30 P. M., in the room of the Cleveland Coal Club, Hollenden Hotel.

Thirty-seven directors responded to the call of the roll.

Directors Charles H. Keyes of Connecticut, J. M. Greenwood of Missouri, and I. C. McNeill of Tennessee were appointed a Committee on Nominations to Membership in the National Council.

The report of the Committee on Investigations and Appropriations, recommending the discontinuance of the policy of granting appropriations for committees of investigation which was unanimously adopted by the former Board of Directors on June 29, 1908, was read by Director Greenwood, with recommendation for its adoption by the present Board. On motion it was so ordered. For the text of the report see the minutes of the meeting of the Board of Directors for 1907–8, p. 42.

Mr. Greenwood read the following report of the Committee on Investigations and Appropriations concerning the establishment of National Education Association traveling scholarships.

REPORT OF COMMITTEE ON INVESTIGATIONS AND APPROPRIATIONS

To the Directors of the National Education Association:

The Committee on Investigations and Appropriations recommends the adoption of the following resolutions by the Board of Directors:

A. *Resolved*, That, beginning July 1, 1909, and until further action by the Board of Directors be had, provided the financial condition of the National Education Association will justify it, there be established three annual traveling scholarships to be awarded in accordance with the following rules:

1. Applications for appointment shall be filed, together with such documents as the candidate may desire to submit in support thereof, with the Secretary of the National Education Association on forms provided for the purpose, not later than April 1 of the year preceding that for which the appointment is asked.

2. No application shall be received from any person not an active member of the National Education Association in good and regular standing.

3. The applications and documents accompanying the same shall be transmitted by the Secretary to the Chairman of the Committee of the Council on Investigations and Appropriations as soon as practicable after April 15 in each year, and, after consideration of the applications and accompanying papers, the Committee on Investigations and Appropriations shall nominate to the Executive Committee of the National Education Association the names of the persons to be appointed as incumbents of the traveling scholarships for the year beginning July 1 next ensuing. The term of the scholarships shall be from July 1 until June 30 the year following.

4. So far as possible, one appointment each year shall be given to a principal or teacher in a normal school or teachers' training class; one to a state, city, county, or district superintendent or supervisor of schools, and one to an elementary school principal or teacher. Where no satisfactory candidate appears under one or more of the three classes above named, the Committee on Investigations and Appropriations may, at its discretion, nominate two or, if necessary, three traveling scholars from one and the same class.

5. The annual stipend of each traveling scholarship shall be $1,000, payable in four equal instalments on the first days of July, October, January, and April.

6. In making application for appointment as traveling scholar, each candidate shall submit in connection therewith a plan of travel and study, and shall, if appointed, faithfully follow such plan under such limitations and directions as the Committee on Investigations and Appropriations may prescribe.

7. Before the expiration of the year for which a traveling scholar is appointed, each

scholar shall file with the Secretary of the National Education Association a report on his observations and educational work during the year.

8. The names and official station of all persons appointed to be traveling scholars shall be published annually in the *Yearbook* of the National Education Association.

B. *Resolved,* That the plan for three annual traveling scholarships as provided in the foregoing resolution shall not take effect for the year beginning July 1, 1909, unless the Board of Trustees shall on or before December 31, 1908, certify to the Secretary of the National Education Association that sufficient funds from current income are available for the maintenance of said scholarships as provided.

Respectfully submitted,
James M. Greenwood, *Chairman*
Nicholas Murray Butler
Frank A. Fitzpatrick
Augustus S. Downing
John H. Phillips
Lorenzo D. Harvey

Dated, July 1, 1908.

It was moved and carried that this report should be adopted.

Upon recommendation of the Committee on Investigations and Appropriations the following resolution was adopted:

Resolved, That the President of the National Education Association be authorized to appoint the following members to be official representatives of the National Education Association at the First International Moral Education Congress to be held at London, England, September 25 to 29, 1908: Edwin G. Cooley, superintendent of Schools, Chicago, Ill.; Samuel T. Black, president State Normal School, San Diego, Cal.; David B. Johnson, president Winthrop Normal and Industrial College, Rock Hill, S. C.; Clifford W. Barnes, Chicago, Ill.

The next order of business was the election of a member of the Board of Trustees to succeed Carroll G. Pearse whose term expired with this meeting. Director Keyes moved that the Secretary be instructed to cast the ballot of the Board for Mr. Pearse to succeed himself. The ballot was so cast and Mr. Pearse declared elected as trustee for four years.

The next order of business being the election of a member of the Executive Committee for one year, a letter was read from W. T. Harris, requesting that he be not re-elected. E. E. Brown of Washington, D. C., and J. H. Phillips, Birmingham, Ala., were nominated. A ballot resulted in the election of J. H. Phillips.

Invitations for the convention of 1909 were then received.

Director Charles E. Chadsey, superintendent of schools, Denver, Colo., presented an invitation for the association to meet in that city. This invitation was indorsed by Director Cree T. Work of Texas.

An invitation from Chicago for the meeting of 1909, or a succeeding year, was extended by Curt M. Treat of the Chicago Association of Commerce.

An invitation from Atlantic City, N. J., was presented by George S. Lenhart, secretary-director of the Atlantic City Publicity Bureau.

A telegram was read inviting the Association to meet in Seattle.

Upon motion the following resolution was adopted:

Resolved: That it is the opinion of this Board of Directors that the next meeting of the National Education Association should be held in the city of Denver, Colorado, provided arrangements be made satisfactory to the Executive Committee.

The Committee on Nomination of Members of the National Council reported as follows:

To Board of Directors:

Your committee on nominations would report the following recommendations:

Oscar J. Craig, Missoula, Mont., to succeed himself for term ending 1914.
David Felmley, Normal, Ill., to succeed himself for term ending 1914.
John R. Kirk, Kirksville, Mo., to succeed himself for term ending 1914.
David B. Johnson, Rock Hill, S. C., to succeed himself for term ending 1914.
W. C. Martindale, Detroit, Mich., to succeed J. F. Millspaugh, term ending 1914.

E. B. Craighead, New Orleans, La., to succeed R. H. Halsey, deceased, term ending 1910.

David R. Boyd, Norman, Oklahoma, to succeed F. Louis Soldan, deceased, term ending 1910.

For Members under New Amendment

One Year, Term Ending 1909

John MacDonald, Topeka, Kans.
Alma L. Binzel, Menomonie, Wis.
Morris Elmer Daily, San José, Cal.
S. L. Heeter, St. Paul, Minn.
Charles McKenny, Milwaukee, Wis.

Two Years, Term Ending 1910

Henry Snyder, Jersey City, N. J.
Katharine E. Dopp, Chicago, Ill.
Edwin E. Sparks, State College, Pa.
Henry Suzzallo, New York, N. Y.
Henry C. Morrison, Concord, N. H.

Three Years, Term Ending 1911

Estelle Reel, Washington, D. C.
Theo. B. Noss, California, Pa.
Julius I. Foust, Greensboro, N. C.
W. T. Carrington, Springfield, Mo.
John J. Doyne, Little Rock, Ark.

Four Years, Term Ending 1912

Sarah Louise Arnold, Boston, Mass.
James A. MacLean, Moscow, Idaho
Edward T. Fairchild, Topeka, Kans.
Alfred Bayliss, Macomb, Ill.
Ernest C. Moore, Los Angeles, Cal.

Five Years, Term Ending 1913

Ida C. Bender, Buffalo, N. Y.
Henry B. Brown, Valparaiso, Ind.
William O. Riddell, Des Moines, Ia.
A. C. Nelson, Salt Lake City, Utah
Reed B. Teitrick, Harrisburg, Pa.

Six Years, Term Ending 1914

Mrs. Ellen H. Richards, Boston, Mass.
Arthur H. Chamberlain, Pasadena, Cal.
M. Bates Stephens, Annapolis, Md.
J. A. Shawan, Columbus, Ohio.
James W. Crabtree, Peru, Neb.

Respectfully submitted,
Charles H. Keyes
I. C. McNeill
J. M. Greenwood
Committee

On motion of Director Mott of Indiana the report was accepted and adopted.

A special committee of the National Council, consisting of James H. Baker, chairman, William O. Thompson, and Augustus S. Downing, appeared before the Board of Directors to present a request from the Council that the several preliminary reports of the special committee appointed at the Los Angeles meeting should be published and should if possible be included in the annual volume of *Proceedings*.

Chairman Baker urged that while these reports are preliminary and incomplete, the matter submitted had been carefully prepared and is in permanent form. Additions may be made later which will not necessarily change the form of the report already made, but will be supplementary thereto. The publication of these reports is especially important since they include matter which will be needed to guide future investigations and which should be widely distributed for this purpose. He especially urged that they be included in the annual volume of *Proceedings* if it should be found possible to do so without exceeding the limits of space. But if not published in the volume, they should be printed in sufficiently large editions to supply the general demand of those interested in the several lines of investigation.

Mr. Baker referred especially to a preliminary report on the subject of "The Culture and Time Element in Education," which he had been requested to make as preliminary to a complete report on this subject. This report included a valuable classified bibliography on this subject which would be exceedingly helpful and indeed necessary for the formulation of a complete report.

A. S. Downing of the same committee urged the publication of the several reports referred to in the annual volume of *Proceedings*, even tho it should be necessary to eliminate, or print in abstract only, many of the papers presented at the various department meetings. He urged that reports of the nature referred to were the results of extensive study of the subjects, had been carefully prepared, and were, therefore, of more value than the usual convention papers and discussions.

In addition, Mr. Downing urged that apart from the question of publishing these reports, the volume could be reduced in size by the elimination of much of the matter now published and by printing only abstracts of the various papers read before the Association.

A motion was made by Chairman Baker and seconded by Director Cree T. Work of Texas that the Secretary of the Association be instructed and authorized to condense the papers and discussions of the various departments sufficiently to make it possible to publish in the annual volume all of the reports made to the Council of Education for the current year; this with the understanding that the Secretary should call upon the president of each department for assistance in this work.

SECRETARY IRWIN SHEPARD, in speaking on this motion, said that the plan suggested of making abstracts of the papers of the various departments for the purpose of reducing the size of the annual volume was far more difficult than might appear at first thought. There are twenty-one different departments of the Association, representing twenty-one separate departments of educational work and interests. While it is true that few papers appearing in the volume are equally interesting to all teachers, it is believed that all papers are of value and interest for those especially connected with the work of the department in which they were presented. The members of the Department of Music Education would deem it important that all of the papers in that department be published in full in the volume of *Proceedings*, even tho it might be necessary to condense the papers read before the Department of Technical Education; while the members of the Department of Technical Education would probably take quite a different view.

While it cannot be denied that there is a great difference in the excellence of the various papers, with rare exception all are valuable and are deemed important for publication in the volume by certain, altho possibly different, classes of members. It would seem impossible to satisfy the members of the Association unless the papers were printed in full, since the members look forward to the annual volume as a complete record of the proceedings of the convention, while many active members who cannot attend the meetings keep up their membership because it secures to them a full record of the convention papers and discussions.

The Association is under great obligations to those who accept appointments on the various programs, prepare the papers, come to the conventions, oftentimes from long distances, paying their own expenses, for the purpose of contributing to the discussions of the convention. Should we decline to publish the papers carefully prepared for the conventions and kept within the limits required, we might soon find it difficult to secure speakers for the convention programs. Certain limits to papers have been fixed, namely, 3,000 words for formal papers and 1,000 words for discussions. These limits should be strictly observed and papers and discussions which exceed these limits should be returned to the writers that abridgment may be made. It is doubtful whether the Secretary or any other person ought to be authorized to make these abridgments.

DIRECTOR WILLIAM H. MAXWELL said that it was evident that the abridgment of the papers presented at the annual conventions was a matter of great difficulty and perplexity and that it was doubtful whether the Association could fairly adopt any absolute rule of instructions to this end. Mr. Maxwell then moved as a substitute for the pending motion that the matter of abridging the addresses made before the Association and of publishing the reports presented to the Council of Education be referred to the Executive Committee and the Secretary of the Association. The motion was seconded.

DIRECTOR JAMES M. GREENWOOD, in speaking on the substitute motion, urged that speakers on the various programs of the Association be requested to make abstracts of their various papers to be submitted with the complete papers themselves so that if the volume of *Proceedings* would not contain all the papers the abstracts might be used instead.

DIRECTOR CREE T. WORK urged that the presidents of the respective departments should be requested to assist the Secretary of the Association in editing the proceedings of each department with a view of keeping them within the available limits of the annual volume.

The substitute motion by Director Maxwell was then put to vote and carried.

CHARLES R. RICHARDS of the Committee of Investigations on Manual Training Courses in the Public Schools presented to the Board of Directors request for authority to increase the number of their committee from the present number of eight to not less than fifteen or more than twenty, in order that all departments of the subject might find representation upon the committee of investigation, with a view of securing a more valuable and complete report on the subject in hand. On motion the request of Mr. Richards was granted and authority given to the committee already authorized to increase its number to not less than fifteen nor more than twenty members.

MRS. FRANCES W. LEITER of Ohio presented to the Board of Directors the following communication:

QUESTIONS PRESENTED TO THE BOARD OF DIRECTORS OF THE N. E. A. BY MRS. FRANCES W. LEITER (ACTIVE MEMBER)

1. In creating the EDUCATIONAL DEPARTMENT OF NATIONAL ORGANIZATION OF WOMEN, was it intended that these societies petitioning for same should appear at the National Education Association sessions in their *organized capacity;* or, in the individual capacity of their members who are active members of the National Education Association?

2. Was it intended that all, or part, of the national organizations of women who were instrumental in petitioning for creation of the department should have power, *in effect*, to make this National Education Association Women's Educational Department *exclusive*, so far as other national societies of women are concerned, which also have educational bearing and have representation in the National Education Association by *active membership?*

3. Was it intended that the societies taking an initial step toward this department should, because of this initial step, continue to have controlling power in, and jurisdiction over, the department, so far as plans, policies, and elections are concerned?

4. Does it not come under the constitutional law of the National Education Association that *any* national organization of women, with active National Education Association membership, by virtue of these active members, *may voluntarily become a part of this department*—its active members having equal power with active members of all other similar societies *of vote and discussion*—whether in the list of initial organizations or not?

5. Where a national society has an educational department, are superintendents or committee members of the same department, *in state and local capacity*, eligible to active membership in the National Education Association?

On motion it was ordered that a committee of three be appointed to whom Mrs. Leiter's communication should be referred, the said committee to report at the next meeting of the Board.

The President then appointed the following committee on Mrs. Leiter's communication:

NATHAN C. SCHAEFFER, of Pensylvania, *Chairman.*
AUGUSTUS S. DOWNING, of New York.
EDWIN G. COOLEY, of Illinois.

There being no further business the Board of Directors adjourned.

IRWIN SHEPARD, *Secretary*

GENERAL SESSIONS OF THE ASSOCIATION

ADDRESSES OF WELCOME

SAMUEL MATHER, PRESIDENT OF CITIZENS' COMMITTEE, CLEVELAND, O.

Ladies and Gentlemen, Members of the National Education Association:

It has become my fortunate lot, as president of our Citizens' Committee, to have the honor of presiding at this opening meeting of your great Association, and, therefore, to have the first oppportunity of giving utterance to those words of heartiest welcome which are in the hearts and on the tongues of all the citizens of Cleveland.

This is not the first time that Ohio has welcomed your convention. It is interesting to recall the fact that after your first organization meeting in Philadelphia in 1857, your first annual meeting was held in Cincinnati in 1858—just fifty years ago; and that it was in Cleveland in 1870—thirty-eight years ago—that your original name, the National Teachers Association, was changed under your new constitution to that of National Educational Association. It was here also, and in that year, that you may be said, perhaps, first to have exhibited, by your absorption of the National Association of School Superintendents and of the American Normal School Association, that wonderful power of growth which has increased your numbers from two or three hundred in the early sixties to twenty-seven hundred in 1884 and thirty thousand and upward in 1905; increasing also your departments from three in 1870—those of superintendents of elementary education and of higher education—to ten in 1879, and, if I am not mistaken, to twenty-one at this present time.

It is interesting, also, to note the fact that in Cleveland today you have again, as in 1870, met for the first time together under a new constitution and a new name. In 1870 your National Teachers Association had merged into the National Educational Association. Here in this year you have slightly abbreviated that name by striking off the "al," becoming therefore the National Education Association; although a glance at your swollen membership list might suggest the idea that you might with equal propriety have affixed "*et* al.'

But how could any association fail to grow and increase in numbers and in influence that held fast to the spirit of that original call in 1856, inviting all practical teachers from North, South, East, and West,

> who are willing to unite in an earnest effort to promote the general welfare of our country by concentrating the wisdom and power of numerous minds, and by distributing among all, the accumulated experiences of all who are ready to devote their energies and their means to advance the dignity, respectability, and usefulness of their calling.

How could those teachers and friends of education who met in Philadelphia in the following year to organize, in answer to that call, have failed to respond to the words of Prof. William Russell of Massachusetts, when he said,

> Fellow teachers, we are met on a great occasion. This event is a most auspicious one as regards the intellectual and moral interests of the whole community of which as citizens we are members. In forming a national association of teachers we may hope for great national benefits. We have at length recognized our peculiar duty to come forward and take our proper place as the immediate agents of whatever measures are best adapted to promote the highest interests of society by the widest diffusion of human culture. Of our acknowledged defective moral education it is unnecessary to speak. Throughout our country the parent is appealing to the teacher and the teacher to the parent for efficient efforts which may bring about a better state of things. The cry for more helpful, more inspired, more effective and more ethical modes of education comes up from all classes of society on behalf of the young, who are its treasured hope.

Organized by such leaders and inspired by such teaching, it is small wonder that you have grown so largely in numbers, and are everywhere recognized as having already accomplished so much of good in the cause of education.

Ladies and Gentlemen, I wish not only to extend to you our heartiest welcome, but also to express our appreciation of the great benefits that may be derived by our community from the presence of such a body of educators in our midst, by having the opportunity of listening to your papers and discussions, and of personally knowing and meeting you.

While possessing, in common with all American cities, the blessing of our splendid public-school system, and while not without the advantage of higher institutions of learning and that sound tradition of esteem for culture which is our New England heritage, yet we are still essentially a busy commercial city, though not so busy since October last as we might wish to be. It is unnecessary to speak to such an audience as this of the more limited horizon, the narrower outlook on life, that threatens any community from too much commercialism. We expect, therefore, to receive from you more than we shall be able to give to you, eager as may be our hospitable intent; but here stands our fair city, with outstretched hands, bidding you warm welcome: may I not say, in the language of our Spanish neighbors to the south of us, "She is yours."

HARRIS R. COOLEY, DIRECTOR OF CHARITIES AND CORRECTION

Ladies and Gentlemen of the National Education Association:

I regret very much that Mayor Johnson is not able to be present in person, but I trust that during the week he may attend some of the sessions of your association. In his behalf, and in behalf of our municipality, I am glad to extend to you the keys of the city of Cleveland. This is no formal matter; for there is a civic consciousness, a civic feeling. Of all its characteristics, I trust that hospitality is one of the leading ones of Cleveland. So in behalf of the five hundred thousand men, women, and children of our city I bid you welcome to Cleveland. I am sure that the children are always glad to see their teachers —in vacation time.

Moreover, I welcome you for what of thought and feeling you bring to our city. The marvelous development of material things has so focused our attention that we are in danger of forgetting the things which are behind them. We rejoice in our railroads and steamships, in our magnificent buildings and workshops, and we forget that the brains that conceived them and the hands that made these things are greater than the things themselves; that thoughts and purposes and ideals are fundamental to all growth and all progress. All that we have achieved in the material world is simply the result of the application of truth and thought to the affairs of our human life. We are glad because you bring to us that spirit of truth which is the hope of the future. Upon one of the great arches in the Chicago Exposition were the words: "Ye shall know the truth, and the truth shall make you free." The truth has transformed the canoe into the great steamship, the stage coach into the Pullman train. The truth is the inspiration of literature and art. The seeking and giving of truth is the hope of the future. Upon the archway of human progress are still the words: "Ye shall know the truth, and the truth shall make you free."

We are glad to welcome you for the power and the promise of the future. I see the great multitudes coming to our shores from the lands of the old world, until some of our timid ones grow faint-hearted. I see their children go to our schools and growing up into citizenship and love of country. I see them bringing their different traditions, abilities, and ideals, and working out with us a better and higher civilization than the world has yet known. I think it is wisest for us to keep our gates open and then give special attention to instruction and teaching in the spirit of truth and liberality and fellowship, giving to these children the equal opportunities of the schools of our land. They are the promise of the coming commonwealth. Josiah Strong has said that this land of ours could support in comfort a thousand million people. In the last hundred years the use of the steam engine and of machinery has increased our powers of production fifty fold.

Two hundred thousand Indians formerly lived east of the Mississippi River, and they thought that the country was full. Forty millions of people are living today in the same territory, in luxury and comfort of which the Indians never dreamed. Under juster conditions four hundred millions of people could live in that same territory with opportunities for culture and knowledge of which we do not dream. When we think of what our own civilization may be—of its conserving influence on the civilization of the whole world—is it any wonder that we should feel that teaching in itself is a profession—a sacred profession?

We are glad to welcome you for what you are. People who are engaged in such great service for their fellow-men must by reflex action develop power and strength in themselves. We are glad that you have come into our midst as the aristocracy of service and of real culture.

We are proud of our city. We have beautiful homes and clean streets, magnificent schools, parks, and playgrounds, but we have no feeling of completion. We are a city growing, finding itself. We are forgetting the things which are behind and pressing forward toward the things which are before us.

We will be glad if Cleveland shall help to solve the great questions of municipal government in the United States.

Emerson has somewhere said: "Happy is the house that shelters a friend. It might well be built like a festal bower to entertain him a single day." Sometimes when we have entertained our friends, there has come to us, when they have gone, a consciousness that they have left behind associations which it is a pleasure to remember. Our homes are richer because they have been our guests. It is with that feeling we welcome you today, the feeling that because you have been with us, our city will be richer in life, in high purposes, in consciousness of power, in faith in the future of our country and its civilization, richer in the elements that go to make up its very life.

We trust that your days here may be full of profit and good fellowship and gladness, and that you may bear with you when you go away from us pleasant memories of our fair City by the Lake.

Again, in behalf of Mayor Johnson and the municipality, I bid you a hearty welcome to Cleveland.

CHARLES S. HOWE, PRESIDENT OF CLEVELAND CHAMBER OF COMMERCE AND PRESIDENT OF CASE SCHOOL OF APPLIED SCIENCE

Mr. Chairman, Ladies, and Gentlemen of the National Education Association:

Dr. Cooley, on behalf of the mayor of the city, has extended to you the official welcome into our midst, and it becomes my very pleasant duty, on behalf of the business interests of our city, to cordially endorse that welcome.

Cleveland is a hospitable city. It is always glad to see strangers, whether they come on business or on pleasure. It is especially glad to see them when they come in organizations which have accepted our invitation to meet here. It is still more glad to welcome a great organization of this kind, for we believe in the work which you are doing.

We trust that this meeting in our city will be as successful, or even more successful than meetings which you have held in the past.

The Cleveland Chamber of Commerce is made up of about two thousand manufacturers, business, and professional men. It is not only interested in the commercial prosperity of the city, but in every question which is for the advantage of the community, the state, or the nation—whether civic, educational, or commercial. So this great organization which I represent can understand something of the work which you are doing, and it is especially glad to see you here.

The business man pays a large share of the taxes which are levied for school purposes, but he has never considered this tax a burden; rather he has considered it an investment which is paid back to him and to the community more than a hundred fold in the increased intelligence of the working man, in enlightened citizenship, and in a contented and happy people. Moreover, the business man hopes that this tax for educational purposes will be increased until the teacher is paid a salary which is commensurate with the time which he spends in his training, and with the character of the work which he performs. Indeed, he is willing that the tax should be increased until every child in the country of school age is provided with a seat all day long in a room well lighted and heated and ventilated, and until the buildings to which we send our children, and where you work, are provided with everything necessary for what you are doing, and made absolutely fireproof.

But the welcome which we as business men give you today is tinctured somewhat with selfishness, for we recognize that in many ways you are doing a work which is of special value to the manufacturer. A number of years ago many of our schools learned that it was necessary not only to train the brains of a child, but to train his eyes and his hands also; and the work of manual training has been extended from one school to another until now it is found in all large cities, and many of the smaller towns. We are glad that you have taken up this work, but we believe you have not gone far enough, that you are called to make still further extensions in this direction. A canvass of the manufacturing interests of the State of Ohio, a year ago, showed that in only fifty-three manufacturing establishments was there any effort to teach boys trades. That is to say, the manufacturers were not training the mechanics whom they must have if they are going to sustain the industrial prosperity of this nation. It is a grave question to solve, how to train the men we must have. Some believe that this work must be done by the public school; that in the future you will take up the subject of trade education. I hope that you will succeed as well in this as you have in the intellectual work which you have done in the past. I see no reasons why the schools should not train boys for trades. A large proportion of the youth of our country leave school at fourteen years of age having no profession, no special qualifications for their life work. There are several reasons why the public-school system of our country should take up this work. A boy whose parents can send him to an institution which is sustained by state appropriations, can continue his education until he has learned a profession. But the boy of poor parents must start out without help; and the time is coming when these boys will demand an education that will fit them for their life work, as the boys of richer parents are fitted for theirs. This is the side of the boy.

But there is another side, that of the nation. The boy who goes out without any preparation is a common workman, receiving a common workman's wages. He is of value only as a common workman. Give him a profession or a trade, and he is worth more. He becomes a greater economic unit and for the sake of the nation we must train these boys, and give them a valuable profession. This question touches the manufacturing interests.

But I believe the business man has an interest in the work which you have done and which you are going to do judged from his standpoint. Sixty years ago private commercial schools were started in this country, and they have filled a great want. They have been followed by commercial courses in our public schools, and now we have some commercial high schools intended to fit boys for business. Formerly it was considered that there were but three professions, but we have now come to regard business as a profession. When the great universities of the country are establishing business courses, requiring a college education for entrance, it is evident that business has become a profession, recognized as such; and the common schools of the country in my opinion must establish commercial high schools that will fit boys and girls for the work which so many of them are to do. So I say, that combined with our welcome to you here, is a selfish interest, because you are doing a work which is going to be of assistance to us.

Again, on behalf of the Chamber of Commerce, I welcome you to Cleveland. We trust your meeting here will be pleasant and successful in every way, and that you will go away satisfied with our city and with the work you have done.

RESPONSE TO ADDRESSES OF WELCOME

WILLIAM O. THOMPSON, PRESIDENT, OHIO STATE UNIVERSITY, COLUMBUS

Mr. President, and Gentlemen representing the municipality of Cleveland and other organizations:

I desire here to recognize the high honor of standing in this splendid presence, and responding in behalf of the teachers of the United States to this most cordial welcome. I desire also to assume all the responsibility on our part for the warmth of this welcome, because you know an elementary law of physics is that motion is easily transformed into heat. When this assembled multitude of teachers struck this city, the arrested motion was sufficient to raise the usual temperature of Cleveland ten or fifteen degrees. I desire also, Mr. President, to say that we appreciate very much the willingness of Cleveland to have us remain here during these days, and since we shall all respond for ourselves in the three or four days that are to come, it is not necessary for me to consume much time in assuring you that the teachers will promptly avail themselves of your generous hospitality.

We appreciate the opportunity to come to this beautiful city. This is historic ground; ground in which the teachers of this country are interested. It is something more than a century ago that Moses Cleaveland journeyed up to this city by the lake—or, rather, the city that was to be, and here in a pioneer way laid the foundation of this modern city. We are interested to know that while he came as late as 1796, the first little schoolhouse was built not long after; that as early as 1817 a building 24×30 was purchased by the corporation to be used as the first light of learning upon this ground.

In 1824 Harvey Rice came to this territory, and in thirty minutes saw all there was to see of Cleveland. He remained here many years. In 1851 that same gentleman had the honor in the Senate of Ohio, after our new constitution was adopted, of introducing the bill which became the law for the common school system of Ohio. He said upon that occasion: "We will now make the public schools what they ought to be, the people's colleges—cheap enough for the poorest and good enough for the richest." That was the foundation of the school law of Ohio, this first state carved out of the great northwest territory; and it became the fundamental law copied by many other states for nearly a generation.

The second schoolhouse in this city was the Cleveland Academy, built not long after the earlier schoolhouse. So from the very beginning the Western Reserve has been a center of all important educational interests to this time.

We are in the presence of the Case School of Applied Science, which needs only to be named in order to be recognized throughout this land of ours. Here too is Western Reserve with her inspiring history and as one of the great and efficient schools of the country. I hope before this convention adjourns to hear that the city of Cleveland shall have responded heartily to the call for the money needed to complete the half-million endowment, the most important call to this city in a generation.

In this city, in 1846, the first high school was organized. After the constitution was adopted and our public-school system provided for the first superintendent of schools of Ohio took his place in the city of Cleveland in 1853.

Your splendid school system has had distinguished men at her head. She has had her Rickoff; her Hinsdale of precious memory; her Draper and her Jones; a quartette of educators seldom equaled, never surpassed in the educational experience of any city in our country. We are happy, therefore, to come to this city whose educational experience has been such as this. We are proud to walk your streets and see the beauty and wealth you have here, where learning, education, and all that is good and true has been so much appreciated. We are sure not only of a warm, but a cordial welcome in this city.

I desire to remind you of what is coming to you. These people who have come here ought to be recognized as the most important, the most dignified, the most enthusiastic missionary convention that assembles on American soil, a company of men and women divinely called to stand for the children of this country, to protect our homes, to perpetuate our prosperity, to develop our civilization, and to stand for all that is good and true and pure in our history as symbolized in Old Glory. We are here at our own expense, and at our own suggestion; and there is no body of men or women in all our land who meet annually that have in their hearts a truer purpose or nobler ideal than the teachers of this country. This splendid service that the teacher brings accounts for the enthusiasm of this hour and of this day. It is a high honor to stand here in the presence of these teachers, and for them express the appreciation we have of the city that welcomes to its doors hundreds and thousands of men and women who come not for money, not for business, not for anything that they can gain, but for what they can give to the children of this land. May I say in all sincerity these thousands deserve to be appreciated and we are glad that the city of Cleveland has the ability and willingness to entertain and the keenness of insight to appreciate the most important body of men and women that meet annually in this country? We thank you for this most cordial welcome.

PAPERS AND DISCUSSIONS

EDUCATION FOR AVOCATION

NATHAN C. SCHAEFFER, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, PENNSYLVANIA

What can the school do to fit the pupils for the several callings by which they will earn their livelihood? is a question which is now, more than ever before, engaging the serious attention of educators throughout the civilized world. This question is so important and all-absorbing that there is danger of losing sight of the other equally important question: "What can the school do to make life worth living during the hours in which the individual is not engaged in the struggle for bread?" The laboring classes are striving to get an eight-hour day. In some cases they have already won this concession. Whether the victory shall prove a blessing or a curse will depend upon the way in which the remaining hours of the day are spent. If the hours which are not devoted to work and sleep are spent in dissipation and riotous living, the eight-hour day will prove a curse instead of a blessing.

I live in the richest agricultural county in the United States, the county that is a congressional district by itself and that has more money deposited in its national banks than any one of seven southern states that might be named. One of its leading industries is the growth and manufacture of tobacco. As soon as the law allows, and sometimes before the legal age is attained, the boy and the girl leave school to begin work upon the tobacco. The owner of one of the tobacco factories assures me that during the noon hour the telephone is kept in constant use by the young people who are anxious to secure seats upon the roof garden and at the vaudeville show. I have no quarrel with the young people who seek recreation during the hours which are not devoted to bread-winning. I have heard of industrial establishments in which it takes twenty-two persons to make a pin, sixty-four persons to make a shoe. I have never been able to ascertain through how many hands the tobacco passes before it ends in ashes and smoke. Think of a human being spending the working hours of a whole week in making the twenty-second part of a pin, the sixty-fourth part of a shoe, the infinitesimal part of a cigar, and you can form some idea of the drudgery against which human nature rebels and from which it seeks relief by visiting the roof garden, the theater, and the saloon. I say I have no quarrel with the toilers who seek recreation. Our insane asylums are filled with farmers' wives whose work was never done, who went through a ceaseless round of drudgery seven days in the week year after year until the nervous system broke down and the individual sank into hopeless insanity. It is the inexorable demand of human nature that it shall seek and have relief from the drudgery of piece work in the shop and the factory. What keeps me awake at night is the thought that if these toilers had been taught at school how to use and enjoy a good book, they would seek recreation and enjoyment by visiting the public library instead of going to the roof garden and the saloon.

It is not easy to map out a curriculum that shall fit pupils for work in a silk mill, a tobacco shop, a caramel factory, and all the other industries which are listed in the United States census; it is even a doubtful question whether the American people would tolerate preparation in the public schools for work in the brewery, the distillery, and the like; but we can all agree on the desirability of fitting pupils to enjoy the things of the mind and the higher life, on the importance of teaching the right use of books, on the supreme duty of training the boy and the girl to think the best thoughts of the best men as these are enshrined in art and literature. The pupil who is taught to think the thoughts of God as these are expressed in the starry heavens above us, in the moral law within us, and in all nature about us tastes the joys of a life which does not turn upon what we eat and drink and the thousand things that money will buy. Education for avocation is quite as important as education for vocation. "Man shall not live by bread alone," is a maxim spoken by the greatest teacher of all the ages; Jesus, who himself earned bread and supported his mother by working at the carpenters' bench, did not mean that we should despise the arts which make bread, but his example and his teachings clearly indicate that a life worth living involves far more than mere education for a vocation.

One word more by way of conclusion. In the countries of the Old World the son is apt to follow the vocation of the father. The station into which he is born determines very largely the kind of pursuit which he will follow for a livelihood. The boy who goes through the *Volksschule* can, as a rule, never hope to enter the portals of the university. Our American conditions and ideals are different. We have organized school systems which, to use the language of Huxley, are like a "ladder on which the youth who has the strength, may climb from the gutter into the university." In our efforts to work out a satisfactory scheme of industrial education let us not forget that the most valuable asset of our people is brains, that our national greatness turns upon offering every boy and every girl all the educational facilities which they are willing to take, that work and vocation must not cause us to neglect recreation and avocation, that there are certain essentials in the school curriculum which fit for vocation as well as avocation, that reading, writing, reckoning, the basal concepts of geography, and the knowledge of our free institutions in their origin and history must be taught the pupils in order to adjust them to American civilization, and that preparation for a life which is truly worth living cannot, for the sake of financial gain or industrial prosperity, afford to neglect or ignore the things of the mind and the joys of the higher life.

THE PROBLEM OF VOCATIONAL EDUCATION IN LONDON

CLOUDSLEY S. H. BRERETON, DIVISIONAL INSPECTOR FOR THE LONDON COUNTY COUNCIL, LONDON, ENGLAND

Industrial education is at present in the making in England. The information I shall give on the subject represents facts and experiences amassed during a long and very wide inquiry into the present causes of discontent with popular education in England. Living in the midst of a great community like London, one is able to get outside the somewhat isolated and cloistral atmosphere of the school and collect and codify the numerous and sometimes self-contradictory criticisms of the many-voiced public in respect to the school. The task is no easy one, ladies and gentleman, but I for one hold that these criticisms, though at times crude and misplaced, are rarely absolutely unreasonable. The diagnosis may frequently be wrong, but the evil is there, and calls for remedy. The complaints, when classified and arranged, may roughly be summarized as follows: The elementary schoolmaster deplores that so many boys, even when education is free up to 15 and 16 years, refuse to stay a day after 14 years, the compulsory age. The parent retorts that if his boy stays on, he starts no better when he goes to work than those who left at the earliest moment. The farmer complains that the school depopulates the country side by exaggerating the pleasures of town life. The town employer in any skilled trade says the school turns out a type of boy for whom he has no use. The old-fashioned person declares that the school is educating the boy above his station, and the cynic adds that it is educating him for no station at all, except it be for standing idle in the market place. The philanthropist deplores the existence of the numerous parasitical trades, such as those of errand boys and government boy clerks, which afford a comparatively good living to a boy from 14 to 19, but being what Professor Sadler, in his admirable book on continuation schools, calls blind-alley occupations, leave the boy absolutely stranded at 20, not only without any skilled employment but more or less unfit to undertake any.

An analysis of the present discontent with popular education in England shows certain underlying economic causes, such as the decay of apprenticeship, due to the industrial revolution and intensified by a somewhat one-sided and incomplete system of education for the masses and lower middle classes.

Yet it must be laid down as an axiom that every complete form of education must include a preparatory stage (the so-called general education) merging gradually into a more or less perceptible professional top. It must, in fact, embody the idea that it is the task of education to train the worker as well as the citizen, if the State is to get its full benefit from its children. It is, for the moment, of secondary importance if this twofold education should be given in the school and the workshop, as in the past, or in the school alone; the essential is that it must be given somewhere. Education must, in fact, be for livelihood as well as for life, and it is indeed curious that our educational leaders who up to the present have been to an overwhelming extent persons trained in the old universities, have not recognized that the so-called general education of which they are such warm partisans, is really nothing more nor less than the preparatory stage to the specialization in law, medicine, or theology which follows at the university.

The education of the masses and lower middle classes is far too much a servile imitation of the old academic curriculum of our secondary schools, in spite of several salutary innovations that the secondary schools are slowly copying. The end or aim of the elementary school, apart from its ethical objectives, is so *general*, that it leads to nothing in particular. Yet if there is one thing we English might profitably learn from our German neighbors, it is that every grade of school should set before it a specific aim in order to have scientific reasons for the framing of its curriculum.

Why has this idea of aim in education been so long in obtaining definite recognition in England, especially in the case of those pupils who do not go to the universities? One reason no doubt is our desire to let things grow and shape themselves, but I, for one, do not believe the policy of muddle is the last word of English statesmanship. Muddle is often only a name for the inductive period in English national thinking. We are very slow to take a decisive step, but then we undo so little, however much we tinker away at things.

The lack of conscious aim in the lower grades of English education is due also in part to the fact that before 1902 different grades were under rival authorities, schoolboards, and county councils. The Act of 1902 placed all the schools under the County Councils. Many of the higher grade schools in the provinces were at once made into secondary schools in which fees were charged while many free places were reserved under the form of scholarships for promising children from the elementary schools. But in London, for various reasons, the so-called higher grade schools were not converted into secondary schools. We have, therefore, in London this anomaly. We have some 80 higher grade and higher elementary schools in which pupils can remain till 16, but not beyond, working alongside of some sixty aided secondary schools in which the bulk of pupils leave at 16 also.

Were the higher grade and the higher elementary schools converted into schools with a commercial or industrial bias, they would constitute the most general and undifferentiated extreme in a category of institutions in which the leaving age was 16, the opposite extreme of which would be a highly industrialized trade school in a polytechnic or technical institute.

Here we must ask the definite question what we want to do with the pupil who leaves at 15 or 16? That raises the question of aim and that in turn will indicate the spirit and bias that should pervade the teaching. When we have got so far, we can choose the subjects for our curriculum and decide the proportions in which they shall be mixed. Every properly framed curriculum must, as we have seen, be animated and permeated by a certain objective and bias. What is called mechanics in a program for the preparation of a senior wrangler will have a perfectly different significance in a curriculum for the training of a plumber. Yet to the subject-ridden person, the importance of the difference will be almost entirely lost. In reality it is as great as that between giving a boy separate quantities of flour and water and an egg, and giving him an omelet.

More difficult still to dispose of than the sticklers for subjects are the contentions of those who attack the intrôduction of a technical or commercial bias into the concluding stage of elementary education. Many persons fear that the result will be to make the ordinary clever boy a hewer and drawer of water forever. Any attempt to introduce an industrial bias, seems to them a deliberate attempt to diminish the share each child of the people should have of human culture.

Now, frankly, exactly what does general education mean? If the history of mediaeval education proves one thing it proves that all education was originally technical and professional. Such general education as then existed served as a mere preliminary to the professional end. Bologna and Salerno were in fact monotechnical institutes—the one trained lawyers and the other, doctors. Paris was a polytechnic, preparing for the law, medicine, and the church. Latin and, later on, the Greek of Aristotle were the basal studies in all these cases, simply because it was in these languages that the lore of the three professions was embodied.

The Renaissance, which confidently believed it had discovered a new heaven in the recently recovered classics, on which a new earth could speedily be founded, only confirmed the supremacy of Latin and Greek. The professional position was further obscured by the fact that the ancient tongues were henceforth employed for the education of the leisured and aristocratic classes whose professional training was supplied by the grand tour they were supposed to make at the end of their school studies. The existence of a professional training in England has been further cloaked and masked by the fact that our training of the classes dirigeantes, in the universities, has been rather an informal and ethical training, arising out of social intercourse, leading to a knowledge of men and mancraft, than an intellectual training in mere book knowledge.

If the above reading of history be correct, then every complete form of education should exhibit three stages, general, general-professional, and professional-general, passing from one to the other with as little discontinuity as possible, the ideal being the production of a citizen with broad ideals, plus capacity sharpened to the point of craftsmanship. The two final stages should both be defined as technical.

A firm grip of these cardinal ideas is essential in order to refute the accusation that we are attempting to turn the school into a workshop, whereas the true object in view is to prepare for the latter, and to bridge over the existing gap between the school and the various skilled callings or groups of callings, not by forming half-fledged apprenticeships, but by bringing the pupil at least two-thirds along the road to it; by giving him a grasp of the basal studies underlying the future craft as well as a certain amount of manipulative skill which will stand him in good stead when he actually enters the workshop. Our motto is, in fact, not mechanical proficiency, but enlightened dexterity. The type of vocational school advocated here, if properly organized on a four-years course, avoids the necessity of any sudden break between the general and professional education inevitable in the case of the trade school—which is for the most part frankly utilitarian. It further safeguards three important points: (1) The acquisition of skill is subordinated to the acquisition of scientific principles; (2) The formation of character remains the paramount aim; (3) The craftsmanship serves pre-eminently as an instrument of culture.

Let me say, by way of personal testimony, that, as a *literatus* of *literati*, I have been driven by sheer weight of fact and logic into the opinion that an admixture of industrial training in the school itself, so far from being detrimental to pure culture, is, on the contrary, one of the most potent influences for its extension and advance.

And first I will cite the facts that seem to me decisive. We have in London a good number of truant schools (to which the title industrial has been given) with nearly fifteen hundred children, and a still larger number of schools for defective children. In the first-named category of schools one-half the day is given to the ordinary literary subjects, the other portion of the day being devoted to industrial training, and, be it remarked, that training is only very imperfectly and incidentally co-ordinated with the literary studies. Moreover, the boys who are committed to these schools, though in some cases they may be brighter than the ordinary run, have often lost a year or more schooling owing to truancy. These schools are inspected by the same inspectors as the ordinary elementary schools, and it is the official verdict of the Council, published in its report on these schools, that "The work in an industrial school (i. e., truant school) is probably as good as in the average board school."

Now, ladies and gentlemen, was there ever a more striking instance of the paradox that the half is sometimes better than the whole?

Again, those who have had to do with the defective schools, and I would mention especially the late chairman to the Education Committee, have borne public evidence to the fact that a remarkable number of originally feeble-minded children have, thanks to the practical training they receive, ended by attaining in literary studies the same standard as the average board-school child, because the advance has been through the tangible and the concrete, instead of through the bookish and the abstract. In fact, to put it in a nutshell, a concrete foundation is as necessary in educational as in all other forms of architecture.

Again, so far from there being any danger of the introduction of technical training elbowing-out general education, as may be seen from the history of mediaeval education, it is one of the most potent factors for lengthening it. The selfsame phenomenon has been reproduced by the definite introduction of technical education into our English system. One of the earliest discoveries the teachers in our technical institutes made, was that without a good general education, any attempt at premature specialization in technical training was a waste of time. It was in fact owing to the insistence of the technical reformers on the absolute need of providing a good general, preliminary education, that our system of scholarships from the elementary to the lower secondary schools was started. It has grown and grown till now it amounts nominally to 25 per cent. of the total population in these schools. At present there are powerful democratic agencies at work for raising the compulsory age from 14 to 15 or 16; personally, I do not believe they will be successful till we can put before the parent a definite type of vocational schooling which will induce him to keep his son at school another year or two on the chance of the boy ultimately obtaining skilled employment. It is a remarkable and significant fact that the pupils in our present higher elementary and higher grade schools are leaving earlier than they did a few years ago, and I attribute the awful slump in the school-leaving age in France, in part to the fact that, if the school has no *practical objective*, the mere attraction of education in the abstract is an insufficient motive for keeping a boy at school against the ever present temptation to make him into a wage-earner.

The claim that craftsmanship serves as an instrument of culture, brings us face to face with the most difficult of all the arguments advanced against the policy here suggested.

Now what is culture? Is it Latin or Greek, or mathematics or literature? Are not all these rather the vases and receptacles of a certain essence of culture, but is not our common culture something infinitely wider? Is it not really the ground-down, indistinguishable, fossil débris of all inventions and discoveries, mechanical, mental, and moral, often as indistinguishable as regarding its original elements as the ground we tread on? In its broadest sense then general culture represents the sum-total of the socialized results of human endeavors in the mechanical, mental, and moral fields.

But while there is a sort of general, basal culture, deep or shallow, narrow or broad, according to the education and upbringing of the individual, which is common to all and is diffused by the home, the school, or the social environment, there also emerges a special culture from the particular training that each receives, be it that of the future lawyer, doctor, artist, or craftsman, that has its own peculiar form and significance. Such a culture is only possible when the training has been an intelligent one—that is, when the recipient has reacted on his training, and has dominated his subject instead of allowing it to dominate him. In the case of the future craftsman the aim would be to produce for instance trained intelligence, not mere dexterity, and at the same time the educator would be careful to dovetail the special culture in with the more general culture that the pupils receive. I contend in all seriousness that this special culture is the most precious a man can possess. It enables him to take joy in his life's work instead of looking on his means of livelihood as a necessary evil, as so many do today, and find their pleasures in life in such "by-products" as hobbies or golf. What should we not add to the sum total of the happiness and efficiency of a nation if we could materially increase the number of those who take a real interest in their work?

If this ideal is realized in the vocational continuative school it should reform the ordinary elementary school curriculum and link up the stage of *learning by doing*, closely to the stage of *learning by heart.*

In London, as throughout England, there are various types of continuation technical schools (day and evening). The evening school is mainly a repairing-shop for the deficiencies of the day school. The day continuation school seems to me to stand on a thoroughly different footing. We have, of course, trade schools with only a year or eighteen months' curriculum, and which prepare directly and prepare well for one definite type of trade. Many trade schools, however, have a two-years and in some cases a three-years course. In such cases it is noteworthy that when non-technical subjects have not appeared in the time table, there is a growing tendency to insert them. The most highly developed example is perhaps the Shoreditch Institute with a three-years course, to which boys are admitted between the ages of 13 and 16. The school is situated in the wood-working trades district and caters to its various branches (cabinet-makers, joiners, etc.); and here, thanks to a carefully co-ordinated curriculum, boys learn the art of self-expression in wood instead of words. A concrete example of an ordinary elementary school, with an industrial aim, is the Gower Street Walk, where printing is taught sufficiently to enable boys, on leaving, to enter the trade at fourteen without detriment to their general education. But London is above all a distributing center; hence, the great majority of vocational schools should have commercial as well as technical sides with a preliminary undifferentiated year—to sort out the boys into the category for which they are best fitted.

A generous system of scholarships, some two thousand a year, enables the most promising pupils in the elementary schools of London to be transferred to the secondary schools. At present, it seems to me, that in the examinations for these scholarships, we put an undue premium on literary qualities. Yet, there is no doubt that the artistic and constructional are equally valuable to mankind, and as they are the first to appear in the child, they are more easily tested for than the literary, which develop comparatively late. A friend of mine has recently, through the kindness of the headmasters and headmistresses of several large schools, arranged for the conduct of a series of examinations in which the subjects, whether literary, artistic, or manual, were so grouped as to bring out the existence of any special literary, artistic, or constructional ability on the part of the pupils. As might have been expected, several remarkable children were discovered by means of the artistic and constructional tests which our one-sided literary and bookish examinations would have certainly failed to reveal. Yet, when one realizes the immense number of trades and callings for which the artistic and constructional abilities are essential one cannot help feeling we must try and reorganize our present too exclusively literary methods of choosing the pupils as well as our too exclusively literary methods of training them. At present we are largely ignoring, to our peril, the possibilities of developing two-thirds of the capacity fund of the nation. There is still a deal too much of natural selection in our schools except in one direction. The problem of all problems for the scientific educator of the future is to organize the selection.

There is one very effectual way by which an excessive production of any particular type of workman could be guarded against, and that is the creation of central local committees for the various groups of trades. Such committees might contain among other representatives an equal number of delegates from the employers and the trades unions in the particular trades concerned. Their main functions might consist in advising on curricula, or the selection of teachers, as well as the granting of leaving certificates which would be recognized by the Trade. They might further assist in the formation of employment bureaus for placing out the pupils. Such a committee has already been formed in London under the auspices of the County Council, to deal with the book-binding trade, and at the moment of writing this address, it appears that the printing trades were also equally anxious for the formation of a committee, while the chairman of the subcommittee dealing with this section of the Council's work is particularly keen on seeing as wide an extension of the movement as possible.

The need of a large number of trade or vocational schools for London, and for all urban districts generally, is vividly brought out by the Council's report on apprenticeship and by Booth's *Life and Labor in London*. We learn from these documents that the skilled trades in London are largely recruited by immigrants to the serious detriment of the London boy who is largely relegated to the position of the unskilled laborer. We are turning out from our schools in thousands today, boys with excellent moral qualities, but through the lack of any preliminary skilled training they too often inevitably fall into the ranks of the unskilled, or still worse into those parasitical forms of employment for which the worker is actually too old at 20.

Looking very far ahead I believe that the establishment of the vocational school in which employers and trade unionists would necessarily take an ever and increasing active interest, will possibly lead through the school acting as a sort of selective agency, to the gradual reorganization of modern industry on a rational scale. The industrial anarchy produced by the industrial revolution has lasted far too long. The present scramble for employment, of all against all, is really a waste of the national energies in all countries where the work to be done is, though capable of expansion, more or less limited, and where some channels of employment are blocked, others, only ahead for skilled labor.

Huxley has defined the perfect school as a capacity-catching machine; he should have added, I think, that it should also be capacity-developing. The vocational school should, if rightly organized, possess this twofold quality of discovering the divers elements in the aptitude-fund of the nation and of cultivating them to their full advantage. One possible result of this organization of the selection may be the re-establishment of something like the system of the ancient Guilds, shorn of their former objectionable features, but reviving the love of good workmanship with an added sense of the dignity of manual labor, that will best come, if it comes at all, from the sense that training in intelligent craftsmanship is a training in culture, and so is really and truly a liberal education in itself.

THE ADAPTATION OF THE SCHOOLS TO INDUSTRY AND EFFICIENCY

ANDREW S. DRAPER, COMMISSIONER OF EDUCATION OF THE STATE OF NEW YORK

Mr. President and Ladies and Gentlemen of the National Education Association, and, incidentally but particularly, you, my long-time friends of the Cleveland public schools:

The honor of a summons to address this association, so completely representative of American schools, so great in its history, so wide in its influence, is accompanied by an obligation which one may well accept with hesitation and approach with humility. And when the subject assigned is one which has the attention of the nation and looks to the decisive re-forming of the schools, and particularly when it is one which lends itself to the round-table much better than to the general assembly, and, more particularly still, when you evince such a decided preference for song and violin as you have tonight, one must bespeak your consideration if he does not fall upon his knees and plead for your patience.

We are within the territory which the first great moral act of the Republic, looking to the upbuilding of the nation, in words as solemn as any a statute could employ, dedicated to freedom, to virtue, and to learning forever. We are met at the very heart of the "Reserve" where New England and New York pioneers, as sincere and forceful men and women as ever came out of the mass to seek opportunity and advance civilization, in prayer and act even more meaningful than an ordinance of congress, dedicated themselves and their posterity to the propositions that men and women are created with equality of moral and intellectual, as well as of legal right; that government is a common need and a common good when moved by moral sense; and that government for any other end than the moral good of the governed deserves the enmity, rather than the adhesion, of men. We are met in a great, busy, prosperous city, which has never given over its moral sense, which has always been alert about its freedom, and which has therefore never been indifferent about its schools.

And, while I well know that not a very large number will understand it, I am glad to feel assured that there are still some good people in this great throbbing city, and not a few fine teachers in its excellent schools, who will believe that grateful memories and fruitful recollections crowd to the fore as I look over this radiant assembly and offer another word about the things which this association and this city hold to be of first concern.

A MESSAGE FROM ENGLAND

We have just had an illuminating message from an accomplished officer of the English schools. His distinguished service to education, our undimmed recollections of the inspiring address he gave us seven years ago, and his resultful work since then in relating schools to industries, have led us to insist that he cross the sea again and speak to us once more upon the subject which is claiming the first attention of our people and our schools. His message is timely because it comes out of the full information and the sagacious outlook of a man who has put his own country and our country under obligations to him: it is more helpful than it otherwise would be because it comes out of the life of a mighty people, whose established habits of industry, whose sane and steady thinking, and whose unbending passion for freedom and for right, have given point and force to their influence upon every sea and in every land.

His message is none the less instructive because our national temperaments and political philosophies are at some points divergent, and because our dissimilarity of industrial conditions makes it impossible to adopt it in every detail. It will be even more instructive if we are able to associate the universality of fundamental principles with inevitable national differences in political and material situations. It would be as fatal for us to assume that a scheme of school organization or a plan of procedure which is adapted to one country must be adapted to another, as it would be to refuse to believe that the universal laws of sense, and the universal gospel of work are as binding upon one people as upon another.

Half a dozen years ago it was my pleasure to show another distinguished officer of the English schools about one of our American free universities. We wandered through offices, and classrooms, and laboratories, and libraries, and shops, and gymnasiums, and then we drove through long avenues of shade trees, until he asked me to stop that he might look about and get a comprehensive view of the whole at once. As it all gathered in his mind he said, "And do you say that all this is free to all the people, and supported by self-imposed taxes upon all the people?" "Yes," I said, "and it is the tax which is voted without dissent, and of which one never hears." He raised his face and hand, in expression more significant than his words, when he said, "There is nothing like it in human history."

Even true, it was not all of the truth. One must have an eye quickened by the American spirit and clarified by American history to see at once all the parts of the educational temple of which that university is but one gem in a resplendent crown. No other eye can take in at a glance the universal systems of primary, and secondary, and collegiate, and professional schools, associated in an educational plan of unprecedented symmetry, closeness, and completeness, which affords to all the equal chance declared in our laws and enshrined in the hearts of all true Americans.

Other peoples do many things better than we do. In some directions their schools are more definite and efficient than ours. It is surely so with the simple schools for the peasant people. But there are no peasants in America. No other nation grasps the doctrine of all education for all the people as we do. We will never let go of that. It is the hope and the heritage of the nation. It is the boon which our democracy holds out to the honest, the ambitious, and the oppressed, in all the world.

It creates difficulties, and we must admit them. All education for all the people has been self-expansive and has come to be expressed in new ways with the advancement of the nation. We all know how situations and needs change in America. Plans laid yesterday have to be modified today. And remedy can not follow upon need as quickly in a country where conclusions must be reached through popular discussion, and opinion must crystallize in free legislation, as in a country where a few do the most of the thinking and a minister or a cabinet exercises the political power for all of the rest.

My friend who has preceded me will not imagine that I am so unmindful of English history as to assume that Britain is a nation where a few men do the thinking and exercise the power for all of the rest. She settled that at Runnymede and again at Naseby, and Dunbar, and Marston Moor, and more than once on Tower Hill. She not only settled it for herself but for us. And since England's best writer of history, in the best history of the American Revolution that has been written, says that American heroism saved English freedom, my English friend will not mind if I say that *we* settled the question, for England as well as for ourselves, at Saratoga and at Trenton and at Yorktown, and then at Plattsburgh and again at New Orleans, and many times by the gallantry of a little navy upon the high seas. The proudest jewel in England's crown doubtless is that we learned so well the great lessons which her statesmen and heroes taught us and then supplemented them with some experiences and some independence of our own. All the stars upon our flag are the brighter because we have defended our democracy and our security so well. The foundations and the buttresses of law are as firmly laid in America as in Britain, and they are no better grounded in any land. We are as sensitive about the learning and the independence of the courts as are the people who look up with keenest pride to the red cross of Saint George—and more than that can not be claimed in any land.

England has always set us a fine example of industry. She has not juggled with opportuneness so much as we have, perhaps because she has had less disposition to juggle, and less opportuneness to juggle with. Democracy, opportunities, and optimism have to be reckoned with in America: they often cause us to be misunderstood in England.

Whether or not we have a fateful craze for wealth, we hold in special honor riches justly gained and sanely used. Our adventurers and our weaklings gamble much upon the unlimited chances which the conditions present; a few win; the greater number go to "the deeps that are dumb." But the country is not all adventurer or weakling. The overwhelming sentiment is sane, and sound, and strong. We believe in capacity more than in chance, and in work more than in opportunity. We put manhood above either riches or poverty. We know that labor, and skill, and prudence, and steadiness, rather than great wealth, make the reliable character and the substantial citizen, and that these spring in the largest numbers and in the most virile type out of all education for the laborer just as much as for the millionaire, and for the commoner just as much as for the prince.

Britain has something of that to learn, and so with her constitutionalism and with the unfettered intellectual freedom of the Saxon race she has educational difficulties as well as we. If the mother country has fewer new situations to deal with, she seems to have greater difficulty about the principles which will have to be applied to all situations. The fact that her situations do not change so often is offset by the other fact that her more settled political and social organization yields less easily to the inevitable advance of the common people: and perhaps it is more than offset by the further fact that her statesmen are not quite as responsive to the democratic advance as ours, and that she does not change statesmen as often nor as easily as we. But we will both console ourselves with the reflection that educational troubles are the proof of educational energy and the assurance of educational progress; and we will be happy in the oneness of purpose which enables us to balance one another and quicken education in all the vast domains where the people understand the English tongue.

LACK OF INDUSTRIALISM IN THE SCHOOLS

Americans are as free in their right of censure as in any other of their freedoms. The elementary schools are everywhere, and often they find themselves within the intellectual limitations of senseless criticism. The loosening obligations of domestic duty and the very weaknesses of the schools have produced an undue supply of people of superficial culture and of "professionals" without employment; and the universal interest in education makes it quite possible for these to occupy themselves and perhaps gain a little standing by endless propositions about the schools. There is evidence enough that they are not slow to take advantage of it. The factors which these people have added and would add to the schools are the essential cause of a widespread difficulty to which it is high time that we address ourselves with determination and with force.

When but one-third of the children remain to the end of the elementary course in a country where education is such a universal passion, there is something the matter with the schools. When half of the men who are responsible for the business activities and who are guiding the political life of the country tell us that children from the elementary schools are not able to do definite things required in the world's real affairs, there is something the matter with the schools. When work seeks workers, and young men and women are indifferent to it or do not know how to do it, there is something the matter with the schools.

The length of the school period and the productive value of the citizen are closely related. Industrialism is the great basis of a nation's true strength and real culture. Knowing this we have seen that there is not sufficient articulation between the educational and the industrial systems of the country. We have seen the indefinite expansion of instruction and the unlimited multiplication of appliances leading to literary, and professional, and managing occupations, without any real solicitude about the vital industrial foundations of the nation's happiness and power. A situation manifestly unjust to the greater number, even unjust to those for whom it has done the most, has resulted. Notwithstanding our boasted universality of educational opportunity, there has grown up an absurd hiatus in the educational system, which denies the just rights of the wage-earning masses and grievously menaces the industrial efficiency and the material prosperity of the country.

The overwhelming trend of the programs of the schools and of the influences of the teachers, acting upon our national temperament and aspirations, has led an undue proportion of youth to literary and scientific study which too often ends either in idleness and insipidity, or in professional or managing occupations for which they are not well prepared and which are already overcrowded.

Nor is the inevitable disappointment the worst of it. There is a glare, a gamble, and a subtlety about it which is demoralizing to all youth. In the marvelous advance and by some legerdemain, men get to be generals who have never been captains, and overseers who have never been workmen. That affronts the sense of the country. We believe in the natural order of progress. While we hold that any one may aspire to any place, we hold also that he must win it, not by pretense, nor by subtlety, nor by favor, but through the work which leads to it, and by the gradual accretion of the substantial qualities which are the only true basis of his right to it. We care very little what the work is. We say that one who may work and will not work is not to be taken seriously. We have more love for a forceful corporal than for an insipid colonel. We say that the only way to proficiency and the only claim upon respect, come through the reflex influence of much work upon the worker. We believe that one whose labor, either mental or manual, adds to the power and the assets of the world, has a wealth and a joy of his own to which the idler, no matter how rich, has no claim whatsoever.

I am aware that I am on sensitive ground and may be misunderstood, but I am confident that if I can make myself clear I shall be sustained by the substantial sentiment of the country. I am not urging manual as against intellectual labor, any more than intellectual as against manual labor. I am not saying that one should remain in the "class" in which he was born, for I know nothing of "classes" in America and I do not admit that any one in this country is ever born in a "class." Work makes the worker. The willing workman, whatever his poverty or his work, is likely to be a better citizen and a better man than the willing idler, whatever his riches or his superficial accomplishments. It is not a matter of "class" at all, but of the adaptation of men and women in general to the work which they can do best. I am not treating of exceptional cases, but surely I am not discouraging those of exceptional gifts, for all experience proves that the exceptional and the great have at first been inured to the severe labor which was at hand and that that very fact opened the door of opportunity, pointed the way to the thing which they could do best, and seasoned them for the doing of it. It is a matter of efficiency, and therefore of happiness and growth, in occupation. What I am urging is that the schools must keep abreast, now and in time to come, as they have been doing in time past, with the natural outworking of our democracy; that they shall not be exclusive in any sense, but must be no less concerned about industrial than about intellectual education. It is because I believe as ardently as I do in the open chance for every American child, that I say that the implications and the influences of the schools must not lead boys who might become excellent cabinet-makers into being no-account lawyers, and girls who might be first-class breadmakers or dressmakers into being fourth-class music teachers. The best chance of every one is through the thing that he can do best, and while the schools are to inspire and encourage him, they may well be on their guard lest in misguided enthusiasm of their own they turn him from the course which is likely to be the best for him.

All education must be provided in American schools, but conclusions about life occupations are not to be forced—not even by implications. Determinations are to be left to natural inclinations and to the fates which are kindly to those who have real inclination to actual work of any kind.

All this leads us to see that the school system has grown deformed: it is one-sided and not broad enough at the base. The trouble is not that the higher institutions have grown abnormally. They are doing what colleges and universities ought to do. They are not doing what they ought not to do. Free universities have become the finest expression of the souls of great states, and they are beginning to be the best expression of the souls of great cities, in all parts of the country. Nor is the difficulty in the secondary schools, although they are affected by it. The ailment is in the elementary schools.

WASTE IN THE ELEMENTARY SCHOOLS

Our elementary schools train for no industrial employments. They lead to nothing but the secondary school, which in turn leads to the college, the university, and the professional school, and so very exclusively to professional and managing occupations. One who goes out of the school system before the end or at the end of the elementary course is not only unprepared for any vocation which will be open to him, but too commonly he is without that intellectual training which should make him eager for opportunity and incite him to the utmost effort to do just as well as he can whatever may open to him. He goes without respect for the manual industries, where he might find work if he could do it. He is without the simple preparation necessary to definite work in an office or a store. He is neither clear about his English, nor certain about his figures. Parents often take their children from the elementary school before the end of the course, not only because they can not comprehend much that is being done, but because they feel that their children will not have more earning capacity for the work which they must expect to do if they stay than if they go.

The programs in the elementary schools are overloaded, and the teachers are overtaxed. The terms have become too short and the vacations too long in the interest of teachers who are often overworked by schools that are too large and by programs that are too crowded and complex. But that is not the worst. There is too much pedagogy and too little teaching. There is too much artificial, and superficial, and therefore false, culture, and too little of the only thing that makes true culture. There are too many classes, too many books, too many visionary appliances. The teachers are forced into fanciful speculation and airy methods in order to be thought at the fore of pedagogical progress. They are pedagogical and psychological wretches who seem to think that they can experiment upon children as physiologists and bacteriologists practice upon guinea pigs, and that without any equivalent basis of scientific knowledge. The result upon the child is confused conceit rather than mental clarity, and a little information about everything rather than exact efficiency in any definite thing. The Germans surpass us in exactness and in the habit of taking care. There is lack of concentration and drill upon any one thing until it is mastered, and therefore there is little exultation over accomplishment, small inspiration to new undertakings, and a dearth of either information or power that is permanently retained. It wearies the teacher and mystifies the child; it confounds the father and mother and deprives the school of the intelligent co-operation of the home.

Even that is not all. We are more prodigal of the lives of children than is any other constitutional nation upon the globe. We let them commence school late and come irregularly and loiter along through a confused course at their pleasure or discomfiture, as you please. Between subordinating our elementary schools to the requirements for admission to a literary high school, and the indifference of legislators and petty magistrates about making and enforcing attendance laws, we are doing a great wrong to millions of children, we show a larger percentage of illiteracy than other favored nations and we withhold the support which the schools are bound to give to the strength and character of the Republic.

Everybody sees the results but not many appreciate the reason; the root of the trouble is not where the uninitiated are looking for it. It is not, for example, with what the editorial writers call the "fads and frills." Drawing, basketry, modeling, sloyd, joinery, cooking, and sewing, for an hour or two each week, impose no burden. They afford relaxation, open the way for healthful comradeship and rivalry, supply motive, and lay a little of the groundwork for happy lives, by looking towards both the manual and mental efficiency so sorely needed. But we do not lay the first courses in the building with sufficient exactness and strength to enable our young men and women to erect either successful professional or successful industrial lives upon them. Good housewifery and good craftsmanship are not forging ahead. The bakeshop is a menace to stomachs and to homes. The woman who can not bake a light loaf of bread, or broil a steak and keep the juices in it, or happily employ her odd moments with a needle, may be a very charming institution; she may keep us posted about the new novels and the opera; she may amply make up for shortcomings by teaching school; but she is an inefficient home maker, and it is not given to many to make up for that. The lack of housekeepers is as serious as the dearth of mechanics, and whatever the schools have done to correct the trouble, in either case, has been but little and it has not been a waste of time. The only legitimate criticism upon it is that there has not been enough of it, nor enough definiteness about it, to make sure of results. If more of the time of the schools were given to these things, with a stern eye to efficiency; and if there were less waste of time in connection with books, we would soon see a new and a more golden epoch in American education and in American life.

The things that are weighing down the schools are the multiplicity of studies which are only informatory, the prolongation of branches so as to require many textbooks, and the prolixity of treatment and illustration which will accommodate psychological theory and sustain pedagogical methods which have some basis of reason but which have been most ingeniously overdone.

I have no right to say this without more definiteness, even though it tax your patience. There is a waste of time and productivity in all of the grades of the elementary schools. If a school is to be graded, then a grade should mean something. A child is worse off in a graded school than in an ungraded one, if the work of a grade is not capable of some specific valuation, and if each added grade does not provide some added power. The first two grades run much to entertainment and amusement. The third and fourth grades repeat the work supposed to have been done in the first two. Too many unimportant and unrelated facts are taught. It is like the wearying orator who reels off stories only to amuse, seems incapable of choosing an incident to enforce a point, and makes no progress toward a logical conclusion. The early grades constitute the period of imitation, and the work should be mainly drill based on memory and imitation. It is not the period of much thinking; it requires such drill as will result in exact knowledge of the rudiments when the time for using them really comes. Thought should not be much expected in these grades. The reading should be for the quick recognition of the word and the proper expression of it, rather than to germinate thought. When thinking is possible and normal, the time to encourage it has arrived. Then it is done too slowly. The work of the first four grades is too much extended, and that of the last four is not commenced early enough.

Let us illustrate: The backbone of our elementary work should be the English language; not language lessons learned and recited, but a progressive knowledge of grammatical analysis, much reading for the pleasure there is in it, and a use of the language in accurate and forceful statement. If this is really the point, it will be seen how much of what we are now doing may be omitted. There is much in our elementary mathematics that is of little value as mental discipline and of little use in life. In the lower grades the pupils should be made "letter perfect" in the tables and the fundamental processes. This perfect knowledge will, a little later, master fractions, decimals, and percentage, which are the same things in different forms. The rest in the books is of little value except in particular employments which few of the pupils will ever enter. There is too much geography in present courses, and much is gone over again and again. Only the relations of the great natural and political divisions of land and water, the location of the great centers of population, with more of the details of one's own state, need find an early place in the schools. The rest is unremunerative to small children and they will get it in a few minutes by and by if it ever becomes necessary for them to know it. In physiology we are trying much which only a physician can understand, and which there is no present call for the child to know, and we are doing it badly and using the time wastefully. We reach after too much mere information in the lower grades, and in the later ones we are not up with the normal powers of the healthy child. And the full and proper exercise of the intellectual as of the physical powers is the essential condition of mental health.

The larger part of this waste, as it seems to me, is due to two very plausible and very baneful doctrines which have pretty nearly taken possession of the schools in the last quarter-century. Their disciples have been sincere enough and I have nothing in the world against them except a radical difference of opinion. Sometimes their theories have been presented attractively enough to carry associations of teachers into pedagogical ecstatics and hysteria. Those theories have had enough learning and truth to make them dangerous, and not enough to make them potential. I refer to the unsubstantial and delusive theories about speculative psychology, and the cure for all educational ailments which is falsely called "culture."

I am far from saying that psychology, or deduction, or imagination, or sentiment, has no place in a system of education. Each has a large place where sense is free to ridicule its excesses and science may impose limitations upon its license. I am far from being indifferent to the forms and accomplishments of polite society; but mere manners may be only boorishness and brutality refined, or insipidity but little disguised. Culture worth seeking, in or out of the schools, must come from labor upon things worth doing, and from the influence of the power to do and the pleasure of real accomplishment upon the soul of the one who does. The external forms of culture do not make real men and women, but enough work, and true teachers, and a healthful and attractive environment are more than likely to start boys and girls on the road to culture worth the having.

There are people who worship theory as though it were greater than life, and culture as though it were something to be put on like a jacket instead of the refining of the soul through the labor and the experiences of life. Emotion, and ecstacy, and affectation, are made to do duty for sincerity and power, and for religion and patriotism, too. These people ignore the culturing value of labor, and of deprivation, and of sorrow. They are flippant about the Bible without feeling its inspirations or studying its translations. They are not much stirred by the flag, for they know little of the heroism that has reddened so many stripes, and they feel little of the aspiration that is emblazoned in every star. Mind you, it is not said that these people are the rich. Quite as often they are people who make "culture" do duty for riches. Frequently they are people who have gained wealth faster than they can assimilate it. Whoever they are, they should no longer be permitted to tear out the substantial underpinnings of the schools.

These things are said only in explanation of the difficulties and in hope of finding a remedy for the troubles of the elementary schools. Whatever the explanation, the difficulty is manifest and the need of remedy is imperative. We must know what children of school age there are in a state, and where they are when the schools are open. We must stand for simplifying the course and shortening the time of the elementary schools, and for making their teaching of more definite worth. We must try very hard to have the child able to do some definite thing, no matter at what age we lose him.

We must organize an entirely new system of general industrial and trades schools which will make it worth while for all children to remain in school; and which will provide for the children of the masses, and for the great manufacturing and constructive industries, something of an equivalent for what we are doing for the children of the more well-to-do and for the professional interests and the managing activities of the country.

FACTORY AND TRADES SCHOOLS

It is time to organize a wholly new order of schools as a part of the public school system. We may separate the new order into two general classes. One class may train all-round mechanics for work in factories, where workmen act in co-operation, where each is part of an organization, and where much machinery is used, and these may be called factory schools. The other class may train mechanics who work independently, mainly with their own tools, and without much machinery, and these may be called trades schools.

We say "a new order of schools" because the new schools ought to be sharply distinguished from any schools that are now known in America. They ought to be wholly apart from the manual training schools. They will have a distinct individuality and a definite object of their own. They are neither, primarily, to quicken mentality nor to develop culture: those things will come in the regular order. The "culturists" are not to appropriate these new schools. They are not to train mechanical or electrical engineers; the literary and technical schools are doing that very amply. They are not even to develop foremen: leaders will develop themselves for they will forge ahead of their fellows by reason of their own ability, assiduity, and force. The new schools are to contain nothing which naturally leads away from the shop. *They are to train workmen to do better work that they may earn more bread and butter.*

A tentative plan would make these new schools more shoppish than schoolish; put them in plain but large buildings, sometimes using idle factories of which many cities have a supply; use books somewhat, but make reading subordinate to manual work; refuse to permit our charming friends, who write and print and sell books, to inflate these schools, as they have the elementary schools to the bursting point; put them in charge of craftsmen who can teach, rather than of teachers who are primitive mechanics; keep them open day and evening; make the instruction largely individual; adjust them to the needs of those who must work a part of the time at least in order to earn a living; and make them for boys and girls and men and women, and of every kind and description which may be necessary to meet the demands of the local factories and trades.

These schools will have to be an integral part of the public school system, for the double reason that they can not be successful without articulating with that system and that they will not be accepted either by capital or organized labor without standing upon a legal footing which is independent of both and fair between them. It may as well be said at once that any school teaching a definite trade will fail without the sympathy of both the capital and the organized workmen engaged in that trade. They can not be expected to support it, if it can be used in favor of another interest and so arrayed against their own. Capital will take care of itself under economic laws that are well understood. If it can not venture with reasonable expectation of profit, it will retreat; but it will exist. Capital has a strong enough motive for activity in the hope of profits, but labor has a stronger one in the need of bread. In this country it is not in the nature of either to brook injustice, and the needs of each make it unnecessary that the other do so. In the last analysis each will have to square with the plan that stands fair, that encourages capital to provide labor for workmen by protecting all of the just rights of capital, and that encourages the man to make the most of himself by assuring all of his just rights in his individual industry and skill.

That is an American plan and it ought to prevail. It is the only one which holds out the equal chance to every one. Such a plan can not in the nature of things be left to private enterprise. It can not be dominated by any forces which are in the least exclusive. American workmen are not willing to depend upon philanthropy. They will not widely accept the training schools set up by the manufacturing corporations. They are entitled to the same or equivalent rights as those which are already granted to the professional and employing classes. They know that, and will exact what belongs to them. Whatever is done they want done so completely as to command the respect of the best skill. They will tolerate no false pretence about mechanical skill, but they will be glad to shorten the time in which their boys may become real journeymen. In any event, they know very well, at least their leaders do, that when these things are so they will have to accept them. All this can come in no other way than upon the basis of, and in association with, the public schools.

The new schools can not displace, nor half displace, the common elementary school. They will have to follow and supplement it. The reason is both in educational necessity and in the likes and the needs of the people. But it is quite possible that the compulsory attendance age, in cities at least, may be so extended as to cover the time of these industrial schools. Easily so if the elementary course can be shortened or children can be brought to the end of it earlier than they are. The law should see that a child is either in school or at work up to his seventeenth or eighteenth year.

How far we can succeed in establishing these purely industrial schools is, of course, problematic. Cities and towns will have to be encouraged by liberal state support. No trades schools have ever been successful without government aid. The experiences of other lands—and there have been rich experiences in other lands—will have to become well known among our people. In any event, it is certain that the extent to which the movement takes hold upon our life seems to be filled with a significance to which no intelligent American can remain indifferent.

RE-FORMING THE PUBLIC SCHOOL SYSTEM

It remains for me to suggest, as briefly as I may, the location and relations of these new schools in and to the public school system, and the extent of the re-forming which will be incident to their admission.

It is proposed to reduce the compulsory attendance age to seven years in cities and towns, and to take definite measures for a far more complete and regular attendance; to lengthen the term and lighten the work; to simplify the courses and to give them a more industrial and efficient trend through the simple forms of hand work, such as paper cutting and folding, moulding in sand and clay, plain knife and needle work, and the like, which can be done in the regular schoolrooms from the very beginning of the primary grades; and to push children along so that they will at all times have work which appeals to their years, and will complete the present work up to the end of the sixth grade at an earlier age than now. If the present eight grades can be shortened by one or two grades and a year or two of time, so much the better.

At the end of the present sixth grade it is proposed to have the system begin to separate into three very distinct branches. The larger part of the work of the present seventh and eighth grades would be uniform, but some differentiation, looking to very complete separation, would begin with the present seventh grade.

The three distinct classes of schools to follow the elementary schools would be first, the present high-school system, which would be somewhat relieved because of the new arrangement; second, business schools looking to work in offices, stores, etc.; and third, factory and trades schools looking to the training of workmen.

With the work of the present seventh grade there might be commenced some study of modern foreign languages by pupils destined for the literary and classical high schools; some special commercial subjects by pupils destined for the advanced business schools; and some special training at benches with tools, and in the household and domestic arts, for those who are to stop with the elementary schools or are to go to the factory schools or trades schools.

At least half of the teachers in the seventh and eighth grades should be men; and these grades may well be housed in central and specially prepared rooms.

We might hope to economize the time and increase the efficiency and productivity through the grammar grades to such an extent that a part of the compulsory school life of the child would remain at the end of the eighth grade; and we might also hope that there would be schools beyond the eighth grade which would be able to so increase the earning power of the child, no matter what his life work should be, that it would be clearly to his interest to remain in school. Then as he approaches what is now the seventh grade, he and his teachers and parents would begin to think of the work he is ultimately to do, and by the time he is through the elementary course he would find abundant opportunity and have some enthusiasm for a school which may exactly qualify him for that work, no matter whether it is professional, or in business activities, or in purely industrial lines.

CONCLUSION

We can discuss the subject no longer tonight. The sure basis of a nation's strength is in industry as much as in intellect, and in skill as much as in resources. The assurance of a nation's greatness is in the equipoise of mental and manual activities. We do well to open treasure-houses of higher and liberal learning, but they will avail little if we permit inefficient primary schools and if we turn away from the labor of the hand. We do well to conserve material resources, but it will not count for much unless we conserve the time of boys and girls and enlarge the efficiency and versatility of the craftsmanship which must convert resources into merchantable goods. It is idle to pursue a course which is destructive of the equilibrium of the common life and ignores the decisive influence of work upon the worker. Heads and hands and hearts, acting together, are larger factors than wood and iron and water in the economic problems of the world, and they are infinitely larger factors in the moral, and constitutional, and international, and eternal problems of men and women.

We can not escape the fact that the elementary schools are wasting time, and that the lack of balance in the educational system is menacing the balance of the country. Children, schools, and country are being ground out between fanciful and conflicting educational theories. The demand that there shall be less mystery and exploitation, less prolixity and parade, that the programs of the schools shall be more rational and the work of the teachers shall fit children for definite duties with more exactness, is heard on every side.

It does not mean that we must give over the work which goes to literary accomplishment, or art sense, or refined manners, or professional equipment, or scientific learning of whatsoever kind. It does mean that the equilibrium between intellectuals and industrials is being lost and must be restored. It does mean that children are being misdirected into misfits and that it must cease. It means more concern for life, increased productivity in the elementary schools, and, incidentally, more rational courses in the secondary schools.

It is not for a great national association of teachers to dodge nor to deny a palpable difficulty in the schools. The fault is no more inside than outside of the schools. It is the product of our political freedom, of our quick temperament and universal ambitions, of our aptness in making and acting upon propositions, of our tendency to do everything at once, of our bad habit of not taking care, and of the toleration and good nature which allow people to try out at the common cost any philosophy that the brightest and wildest imaginations in the world may bring forth. In a way it is creditable to us. We would rather be all that we are than be without the open chance and without the common alertness. But it is for the National Education Association to recognize difficulties and meet them. We may not all see just how to do it tonight but we will find the way tomorrow. And no matter what we do, the glorious optimism of the nation will rise to greet the morning sun with an eye as clear and a soul as confident as ever.

PROPOSED WORK OF COMMISSION FOR CONSERVATION OF NATIONAL RESOURCES

CHARLES R. VAN HISE, PRESIDENT STATE UNIVERSITY OF WISCONSIN, AND MEMBER OF COMMISSION

Ladies and Gentlemen:

On May 13 of this year the President of the United States gave an epoch-making address in the East Room of the White House. At his right were the members of the Cabinet, at his left were the justices of the Supreme Court. Before him were the members of both branches of Congress, the governors of all but two states of the union, their scientific advisers, and a representative each of all the great national associations. Probably never before was there gathered together a more representative audience. Upon this historic occasion the speech of President Roosevelt was upon the subject, "The Conservation of our National Resources."

For a generation nearly the voice of the scientist has been heard at their association meetings upon this subject, but his voice has been a voice in the wilderness. Now through the instrumentality of President Roosevelt, the voice of conservation has become the voice of the nation.

There may be differences of opinion with reference to the services of the

President upon various political matters. There is, as we know, indeed great difference of opinion. But there can be no difference of opinion among thinking men as to his service to the nation in this matter of the conservation of our resources. When he took the office of President, our timber, our minerals, our coal, for all in the eastern part of the United States, for all the central part had passed into private hands. A beginning had been made of the reservation of the forests of the West before President Roosevelt's time, but during his administration practically all of the great forests of the West which still remained have been withdrawn from public entry and remain the property of the nation. Not only so, but the mineral fuel also is no longer subject to entry but remains subject to the nation. And now following these two great acts he has taken up the question with Congress, with the governors, with the people, as to the conservation of all our resources, both those in public and those in private hands. I believe that the work which the President has done in this matter will among future generations mark him as not only one of the greatest statesmen of this nation, but one of the greatest statesmen of any nation of any time.

At this Conference upon the National Resources, May 13 to 15, a series of notable addresses were given. Andrew Carnegie spoke upon the "Conservation of the Mineral Resources." Mr. James J. Hill and Professor Chamberlin spoke on the "Conservation of the Soil." I. C. White, state geologist of West Virginia, spoke on the "Conservation of the Coal and Oil Resources." Mr. Long spoke on "Forest Conservation;" Governor Pardee, of California, on "Irrigation," and Emory R. Johnson spoke on the "Waterways." These addresses were discussed by the governors and their scientific advisers.

It is impossible in a twenty-minute talk to attempt to summarize the points which were made in these addresses, which extended through a period of three days. Only a few of the most notable facts can be mentioned. It was clearly developed as a result of those three days' discussions, that we in the last half of the nineteenth century have drawn more heavily upon our resources of coal and iron than all previous generations. It was shown that the forests which were said to be inexhaustible are far toward exhaustion throughout the eastern and central part of the United States; and the only great forest supplies which remain to us untouched are those of the Pacific States, California Oregon, and Washington. Fortunately, through the intervention of the President, these are permanently conserved to the nation. It was shown that our soils in the eastern and central part of the United States had become depleted in their fertility. A century ago North Carolina was one of the greatest agricultural states of the Union; now a large part of its acreage has been converted into bad lands or has been covered again by the forests. The New England states, New York and the other central states, instead of increasing in their land values are decreasing; and in the state of Ohio the fall of land values in the last twenty years was more than fifty millions of dollars. Of all our resources the soil is the most fundamental. Upon the soil we depend for our food and clothing, and although we have occupied the larger portion of this country less than a century, a large part of the area is depleted in its richness. And what is one century compared with our hopes for the future life of this nation? This great depletion in richness has been due to single cropping, to unscientific farming, combined with erosion of the streams, so that the lands of the East instead of becoming more fertile have steadily become less fertile, and are yielding a smaller crop than they did a half century ago. Our children may complain of our political mistakes; they may complain of the problems which are put upon them as the result of our inexperience in social matters; but that will be as nothing as compared with the blame that they will lay upon this generation for their wanton extravagance in using our natural resources. We have been using the heritage of our children and our children's children as if our supplies of natural resources were inexhaustible, whereas every one of them is exhaustible. Iron is limited in amount, and should be drawn upon as carefully as a bank account.

It took millions of years of labor of earth and sun to manufacture our natural resources. They are the inalienable heritage of our people and not of a chosen few. Under our laws we have largely intrusted them to the care of great corporations. These corporations must so administer their trusts that the people shall possess their heritage. By this I do not mean to suggest that the corporations now controlling these properties should be wronged, but they should understand that they are in the position of trustees with reference to these great sources of wealth; and if they do not willingly administer them to the advantage of the people, the nation and the states not only ought to, but will prescribe regulations necessary to accomplish this; even if such regulations go to the point of fixing the price of labor and of output.

Mr. William J. Bryan in summarizing the results of The White House conference in a notable address said, "There is no twilight zone between the nation and the states where exploiting interests may take refuge from both."

The conference produced a deep impression upon all those who attended it. The Committee upon Resolutions drew up a strong series which were unanimously adopted, covering many points of transcendent importance in the conservation of the natural resources of the nation. In this report it was pointed out that there is a close correlation between the conservation of one resource and that of another. If the forests are conserved, the streams will have equal flow; they will be available for navigation; they will give the highest efficiency for water power; the lowlands will not be inundated; and thus the preservation of the forests will assist in many ways the usefulness of the streams. And if the streams are utilized for water power, the coal will not be so heavily drawn upon. The conservation of soil and the streams are all connected with the beauty of the country.

And so this great subject of conservation is an interlocking one. It makes no difference where we begin. It is not easy to pick out any one subject perhaps which should be emphasized in preference to another. But if it were possible to select any one measure which is more important than any other at the present time, because the dangers are more imminent, it is that of the conservation of the forests of the southern Appalachians. You who are in the South and from the South know very well that there are very steep slopes in that region. You know the soil is deeply disintegrated, it is only held in place by heavy vegetation. If those forests are removed, the abundant rain fall will carry down vast quantities of clay and sand, and destroy the lowlands. You who are from California know that a comparatively small amount of material, as the result of hydraulic operation, has done much damage to the lower part of the stream. It has choked navigation. It has destroyed extensive areas of arable land. The amount of material which has gone down the streams of California as the result of hydraulic operation is not a one-hundredth part of the amount that would be thrown upon the great valley of the South if the great Smoky Mountains were denuded of their forests. Yet one man, or one group of men in Congress, stood in the way of this measure which was for the conservation of the nation!

I speak plainly upon this matter, because it is one upon which I feel strongly. So deeply were the governors of the states moved by the importance of the subject of conservation that several of them announced before they returned to their homes, that the first act that they should perform would be to appoint a commission for the conservation of our natural resources. In their resolutions they requested the President to appoint a United States commission to co-operate with them in this great subject. This President Roosevelt has done, and already there are a number of state commissions appointed. Doubtless before two years have gone by, the majority of the states of our nation will have commissions on the conservation of the natural resources of their respective states. And these commissions will co-operate with one another and with the United States Commission in this great work. Up to the present time the Executive Committee of the United States Commission has had one meeting, and a great campaign of work has been outlined. In the first place it has been seen that we must at the outset take an inventory of our resources, find out what we now have, find out how much of this material has already been utilized by this nation, find out the rate of present exploitation per year of our minerals and fertilizers in order to be able to calculate the probable time that these resources will last.

This commission has realized that a great set of studies must be taken up with reference to decreasing the waste and increasing the economical use of our resources. At the present time we gain from our coal not more than one-third to one-fifth of its full value; the methods of mining waste a large quantity. How may we reduce the waste in mining, and more economically use the product that is mined? Here will be a great investigation, which will continue through a number of years.

Then these commissions—the state and government commissions—have before them the great problem of educating the people to realize the importance of this subject; the problem of instilling in the youth a sense of responsibility to succeeding generations with reference to our natural resources. And here is the point where we appeal for assistance from this National Education Association. Each one of you—a teacher, a principal, a superintendent, an instructor in a college or a university or a grammar school—each one of you may be a center of influence in carrying forward this campaign, which, the President says, is the one of the most supreme importance before this nation.

We in the midst of the marvelous resources of this country can scarcely realize its importance; but any of you who have ever read about China, and know how the mountains of that country have been denuded of every stick of timber, how the soil has been carried down, down to the sea, how the productiveness of the country has been enormously decreased because of the unwise exploitation of the natural resources, will realize how important conservation is to our nation. We have little more than a hundred years behind us as a nation. We hope not only for a thousand, but thousands of years to be before us. We hope for a future history longer than nations have continued in the past. And if this be so, we can readily realize that the utmost care should be exercised in the use of our natural resources, a large portion of which required for their making the building of the world. Therefore, as a representative of the National Committee, I ask the active co-operation of this body in conserving the national resources of the nation.

THE FUNCTION OF EDUCATION IN A DEMOCRACY

M. G. BRUMBAUGH, SUPERINTENDENT OF SCHOOLS, PHILADELPHIA, PA.

We have in our midst an educational institution that numbers its variform activities by the thousands, its physical plant by the tens of thousands, its teachers by the hundreds of thousands, its pupils by the millions, and its annual expenditures by the hundreds of millions. This institution, represented alike in the great urban centers and in the remotest rural community, and precious in the heart of every patriot, is the free American public school. In a general way it is regarded as the bulwark of our liberties, the stronghold of our democracy. It is praised by all in their organized capacity and criticized by all in their individual capacity. Heedless alike of praise and censure, it steadily performs its function to democracy and thrives by a mystery of growth that baffles analysis.

What is its function, and how may it best be promoted? Democracy is essentially, as Lincoln characterized it, "government of the people, by the people and for the people." Its hope and its destiny are with the masses. What the masses are determines what democracy can be. If, then, our democracy is to be essentially and really the pride and glory of men it must rest upon some more fundamental and vital institution whose function it is to train individuals for participation in the form of government we avow. This prop beneath the

Republic, this universal factory whose output is to make an advance democracy, is, for obvious reasons, the free public school.

Two individuals can participate in a common cause only to the extent that they possess common sentiment and common knowledge. To increase their effective participation requires a broadening of their common knowledge. To make participation impossible requires only the absence of common knowledge. This holds true throughout. Hence, our democracy depends upon the possession by all its individual participants of a fund of common knowledge, which fund is the currency of democracy; and the function of the public school is to impart such a fund of common knowledge to all that participate in our democracy as to make facile the interchange of ideas and the reciprocal regard of each for the other. The initiation into democracy should always be contingent upon the possession of this common knowledge. For that reason the stranger from without should serve an apprenticeship in the American public school before he is invested with the toga of American citizenship. Likewise any one in our midst, native or foreign born, that has neglected to fit himself for participation in our democracy should be denied what his own neglect prevents him from comprehending. I am well aware that a few do, independent of the school, find agencies of guidance that will fit for participation in democracy, but for the masses the hope of a worthy citizenship, and the hope of our civil institutions alike, rests with universal public education.

Moreover, the growth of democracy, as well as its security, depends upon the widening of this fund of common knowledge. Hence the specific means of promoting the best traditions in our national life will be found to lie in the increased efficiency of the schools. What the school is as the creator of common thought and common sentiment determines what our democracy is. Upon this basis the state supports the school, and the system of education is maintained by taxation prescribed by the laws of the state. The measure of this financial support is the measure of our belief in democracy. When any citizen opposes an equitable, indeed, a liberal support to the schools he opposes the government itself.

To promote the ends of democracy many states by compulsory laws prevent child-labor and also require attendance at school between the ages of eight and fourteen. These laws should be universal in the Republic. We must, as educators, take our stand with those that oppose the coining of the blood of childhood into the currency of the market place. We must also take our stand like Luther and those since him that refuse to allow our government to be impaired by the presence in our midst of a schoolless child.

In maintaining an efficient system of education the state is governed not by sentiment but by necessity. It is not the life of the individual but the life of the state itself that is involved. In no other form of government is this so manifestly true, since in ours alone is the measure of education the measure of democracy. Hence we have little to learn from European states concerning the function of our system of education. To imagine that we can learn by a comparative study of educational systems is to imagine a vain thing. To visit other systems and, returning, proclaim our own to be weak and inadequate because it is not like others is to betray one's lack of understanding and to confess one wanting in the essential insight necessary to educational leadership in a democracy. Our system may be different. It should be, since its function is specific and particular. We can learn from others relative to methods of procedure, schemes of classification, common nomenclature, and forms of organization and administration; but all these are superficial details. The fundamental purpose lies deeper and is discerned only by a study of the school in its relation to democracy.

In the best sense of the word democracy's concern in education is purely selfish. It aims to realize through the school its own ends. What ever the state visions as good in its own advance, it rightly expects the school to impart. To this end the people are taxed and the state assumes control of the child, for in a true democracy, "the child belongs more to the state than to the home." We must not lose sight of the fact that the primary business of a public school system is to make illiteracy impossible, and by so doing make democracy possible. One illiterate citizen is a menace and his participation in our scheme of government is fraught with grave consequences. The voter, lacking in this common knowledge, is the easy prey of the gangster, and the occasion of the half-confessed fear that our civic institutions are destined to failure. The so-called campaign of education indulged in by the political parties once in four years is a beggarly and futile attempt to do what the school should have been permitted to do years before. The thinking man—the product of the school—may be a menace to gang rule but he is the one genuinely competent guardian of our national life.

The public school finds its chiefest defense, not in promoting the welfare of the individual put the welfare of the state itself. Its first concern must be to equip each to co-operate with his fellows and then, and not until then, shall it turn to the more individualistic task of fitting each one for the highest economic efficiency. The first business is to train for participation, then for competition.

We can never with safety add to the curriculum of the schools until we have first and always made ample provision in every school to teach the simple rudiments of the universally essential tools of democracy—a mastery of the language of the Republic and the ability to make record of one's thought in the symbols of language, and the symbols of number. The little red schoolhouse, with its zealous teacher and its drill in the three R's, is not a tradition from which to depart; but an ever-present reality around which to weave in loving appreciation all the tendrils of future growth. I do not object to education for efficiency provided only that we achieve efficiency for the ends of democracy before we achieve efficiency for individual gain. First, then, the school exists for the state and after that for the purely personal preferment of the individual in our industrial competition. The measure of efficiency is not the earning power for the individual but the serving power for the state. In fact, earning power, the bread problem, is conditioned upon a stable and progressive democracy.

But democracy is but one of the forms of government by means of which individuals seek to advance the race. All peoples, living under all types of civic order, are in one way or another promoting the ends of civilization. The school for democracy must also be an agency of civilization. It must train its members to the willing need of giving to the race as a whole, in a purely unselfish way, special gifts of inventive and creative genius. But it does this in an altruistic spirit, and independent of the function it owes to democracy. We thus have two types of educational institutions to maintain, the free public schools for the ends of democracy; and the higher and technical schools for the ends of civilization. The test of the former is the quality of citizen it produces; the test of the latter is the degree of civilization it promotes. The gifts of these public schools are service to the state and to the individual. The gifts of the college and university are service to the advancement of the race as a whole. One does not ask of the public school the large gifts of creative genius but it does ask these gifts of the "capped and gowned" graduate of the university. The state supports the public school as a necessity. It supports the university as an obligation to civilization. One may not be a more worthy member of a democracy by reason of the special knowledge gained in the university, but one ought surely to be, as a result of that special knowledge, directly a promoter of the universal good, and indirectly, by giving his special knowledge to his state, a promoter of democracy. If then the state provides by taxation for both types of education it meets its obligations first to itself and then to civilization. It follows that the relative worth of the several dominant forms of government is found in the measure of their world service. In this comparative study democracy may easily claim pre-eminence because of her unparalleled service to the race as a whole.

From a study of these views flow certain facts and considerations that relate rather definitely to the present status of our educational system.

a) The public school is limited in the realization of its function to democracy by the quality of teaching life it attracts, by the time it devotes to universalizing its fund of necessary common knowledge, by the amount of money expended in its maintenance, and by the effectiveness of its legislative provisions in securing regular attendance on the part of all embryo citizens between the ages of eight and sixteen years.

The first patriotic duty is to make the life of the teacher more tolerable, by surrounding him with a complete physical equipment, by enriching his social life, by promoting his professional welfare, and by increasing his compensation to make possible for him a higher standard of living. Under this declaration lies the need for a more sympathetic supervision, a more stable tenure of service, a generous retirement fund, the transportation of pupils, the consolidation of isolated schools, the lengthening of the minimum school year, and the closer articulation of all the social, intellectual, and moral influences of the community with the school.

We can never serve democracy by lessening the years of an elementary education, nor by the devices that, to save time, really sacrifice efficiency. He only is true to his nation's welfare who steadfastly pleads for ample time to fix and make facile in the pupil's mind the fundamentals of an ordinary education, and who has the courage to declare that thoroughness in the things done is of more consequence to the state than the haste to rush to the college and university a product, which in spite of the higher institution, is but imperfectly and superficially fitted to participate in a progressive democracy. The patriot here is courageous enough to say, "It takes time, gentlemen, to educate citizens for this Republic."

The financial support of the school must be more ample, and its amount through stable legislation placed above the caprice of local petty partisan control. We know in advance how many pupils the school must receive, and we should know years in advance how much money we may plan to expend in the necessary development of the system as a whole. It is better and saner to erect ample school buildings surrounded by ample playgrounds and officered by thoroughly trained teachers than it is to maintain criminal courts, jails, hospitals, and asylums.

The state must so legislate as to make impossible the employment of child-labor; and it must, as it compels attendance, provide such varied forms of elementary education as to give to each child the largest gifts of guidance and helpfulness. The patriots here are the legislator and the school official who are wise enough to guarantee to the humblest and the most unfavored child the best training for democracy that experience can suggest.

b) There must be as ample provision made for play as for study. The ends of democracy are served not alone by the trained mind but also by the healthy body. Besides, supervised play is as effectively a training for democracy as is the supervised school. The ideal citizen appreciates and aids in maintaining for all a good home, a good school, a good church, and a good playground.

c) We need, more and more, a corps of teachers more anxious to serve the needs of childhood than to unfold in logical sequence the academic studies. To fit each individual to live with his kind is vastly more significant than to train him to the last degree of detailed accuracy in the formulae of the sciences. In short, the schools need, for the sake of a healthier democracy, more enthusiastic teachers, not more technical scholars.

d) To promote the ends of our national life let us widen the range of common knowledge for all and attract to the school the active sympathy and loyal support of those who love their country most and serve it best, not those who would exploit the school as an agency of selfish gain.

e) To promote the ends of civilization let us welcome all higher institutions of learning and secure to them generous national support. Let democracy assert its claim to "the best" by training its specialists to give freely and bountifully their choicest products, and their own service to promoting the welfare of the race as a whole. Let the ideal held steadily before each of our youth be unselfish service for his country and for his kind.

NEGRO EDUCATION AND THE NATION

BOOKER T. WASHINGTON, PRINCIPAL OF TUSKEGEE INSTITUTE, ALABAMA

I believe that industrial education has a distinct function in preparing people for life in a democracy, and strengthening the life of these people in the country in which they live. In this respect, in the little village of Tuskegee, Alabama, for a number of years we have been trying in a humble and simple way to do our part in preparing some of the millions of our race for the part they are to play in the life of this republic, and we have been trying to do so in a fundamental and sensible manner.

We have emphasized, in connection with other forms of education, what is termed industrial education, ever since that institution was founded. We have done it with several points in view.

First, we have emphasized industrial education for its economic value to the school itself and to the student himself while upon our grounds. We have ninety-six buildings, large and small, upon our grounds, and all of them except four, have been almost wholly built by the labor of the students, and built at almost half the cost for which they would have been built by outside labor. A very large proportion of these students could never have remained there long enough to finish a course of study except for the chance which we have been affording them to help themselves through these industrial opportunities given upon our grounds.

Second, we have emphasized industrial education for its trade value. Every man or woman going out from that institution is the master of some special trade or industry by which he or she can earn his or her living any day in the year. We have emphasized it again for its mental or mind-building value. More and more I believe that the educational world is coming to agree that we cannot only learn, not only strengthen the mind by studying about things through the medium of books, but equally as much we can strengthen the mind by studying the things themselves, and even without the book. A great writer once said, "Whenever I hold my pen in my hand it helps me to think." I believe that more and more we are going to believe in the educational world, that holding a hammer or a saw or a trowel or a plow in the hand helps one to think.

We have found after years of experience at Tuskegee that we can make one form of training assist the other form. For example, go into our academic classes and you will find a large proportion of these problems in mathematics which the teachers use have been obtained from a brick yard or from a brick wall, or from some practical operation on the farm. In the old days you remember how the student was required to commit to memory table after table relating to furlongs and acres and rods. When he got through he didn't know whether an acre was the size of this room or ten times its size. At Tuskegee our students go into the field and measure off an actual, a visible acre of land. Then they take the problem into the arithmetic class, and the student calculates the cost of the seed, and the cost of preparing the land and the cost of working and harvesting, for instance, an acre of turnips. Then often on commencement day that student gets up before his parents and reads an essay of how he himself has actually planted and worked and harvested an acre of turnips; and that kind of an essay on commencement day at Tuskegee is mighty interesting, because that student knows what he is talking about.

In this same connection we have emphasized industrial education also because of its moral value; its value in teaching the members of my race the lesson which any race of people needs when they first throw off the bonds of slavery, the lesson that all forms of labor are dignified, and all forms of idleness disgraceful. It is teaching my race to keep its feet upon the earth, and it is a great thing to teach a new, inexperienced race to keep its feet on the earth. At Tuskegee I never let a day pass without getting my hoe or shovel and going into my garden and digging down in the soil. I like to be sure that once a day at least I am touching the real thing; and it is equally important for a race to learn the same lesson.

You can easily imagine that it was not an easy task to teach my race, when it first became free, the dignity of labor; that there was an opportunity for it to become useful and strong and powerful through the medium of not only studying books, but by studying things as well, and learning the dignity of labor. I can remember how for months at Tuskegee in the earlier years of our efforts to found that institution, parents objected to industrial training for their children. They said over and over again, "We want our children to learn books." They didn't care what kind of books nor what the names of the books were, but books—books. They said, "Our people have been worked for two hundred and fifty years in slavery, and now you establish a school to work them some more." I said, "We haven't established a school to work the race. We have established a school to teach the race how to work." We told them there was a vast difference between being worked and working. We said to them that being worked meant degradation, and working meant civilization. But some people object to everything in the form of progress that hasn't been done in the same way for a thousand years.

But I am glad to say, my friends, that that objection has passed away completely, that there is much of enthusiasm now among the rank and file of my people in the South for the opportunity to learn how to work on the farm intelligently, scientifically, skilfully; that there is as much enthusiasm to learn mechanics or housekeeping as there is to learn algebra, history, or science, or any other department of academic training.

If you were to ask me to state in a sentence what has been the most powerful work of our institution, I should say that it consists in something that is not quite tangible or visible. But the most powerful work has been teaching my race to get rid of the old idea regarding the influence of labor; teaching them that all forms of labor are dignified; teaching them the same lesson that made your race strong and powerful and useful, the lesson that each race, despite its moral progress, its religious progress, its mental strength, must have a certain economic foundation. In that respect the negro can be no different from other people in this country.

But does this effort and this form of education pay the nation? And to what extent? Counting those who have finished the full course, together with those who have finished a partial course and are doing reasonably efficient work, the Tuskegee Institute alone—and it is not the only institution doing this work; there are scores of others, but perhaps on a smaller scale—that institution alone has sent out into the world, mainly into the South, six thousand men and women who are working every year in the uplift and strengthening of their fellows. Let me give you one example of this class, and the quality of this work. I have in mind one of our girls who began sixteen years ago to teach in a district in the South where there never had been a school longer than three months. That girl began teaching for eleven dollars per month, for three months in the year. Go into that community to-day. Through the sacrifice—as the world terms it—you will find a school lasting nine months every year, in a neat, comfortable cottage; the people owning their farms and living in beautiful, well-kept houses. You will find a complete revolution in that community. When I was there last, I saw that girl close her school at two o'clock in the afternoon. I saw her take a hoe and lead her boys and girls into a field about the schoolhouse. I saw her work in four acres of land and at the end of the year she produced two bales of cotton and sold it so she might have the school term last nine months a year. Some people refer to that kind of thing as a sacrifice. I never do. Sometimes people are kind enough to refer to me as making sacrifices for the benefit of my race. I have never made a sacrifice in my life. No one who has the privilege of rendering a service in the interest of his fellows after the fashion of that girl ever makes a sacrifice. The man to be pitied is the one who lives for himself alone. The one to be envied is the one who has learned to live for others. The longer I live and the more experience I have, the more I am convinced that after all the one thing worth living for—and dying for if necessary—is the opportunity of making some human being more happy and more useful. When we take that supreme object out of the life of a teacher, the profession of a teacher is not worth having.

There is something deep down in human nature that compels one man to respect success in another man, regardless of the color of his skin. With the education and with the development of the millions of negroes in this country this entire nation should concern itself. The President of the University of Wisconsin referred to the waste of the natural resources of this country. Do you realize, my friends, that one-fourth of the physical territory of America is occupied almost wholly by the negro race as laborers, to the exclusion of almost every other class of laboring people? Do you realize that statistics show that these people get only about one-fourth out of the soil, about one-fourth as much as is gotten out of the soil by your farmers in your northern and western groups of states? It is impossible to reach these millions of my people and to show them how to conserve the natural resources of this country except you reach them through the schools as has already been pointed out.

You will find that these people are going to remain here. Within the lifetime of persons now living, the negro race will perhaps have increased from ten millions to fifteen millions. You owe a duty to us, a supreme duty, one which you owe to no other class of foreigners. You forced us here without our willingness to come here. You invited us here. You paid our passage here, and we have some right to remain here. Aside from the matter of color, the negro in America is more like you than any other class of foreigners with whom you come in contact. Far different in that respect from the American Indian, far different from the Japanese, from the Chinaman. He professes the same religion you profess, and has the same number of denominations that you have. He speaks the same language you speak, or makes a brave attempt to do so. And you will agree with me, my friends, he spells out of the same book that you spell out of. In that respect he not only follows you but sometimes gets a little ahead of you. He dresses as you dress. We may be a little behind in the fashion one Sunday sometimes, but if the merry widow hat appears on a main street this Sunday, our women may be behind, but look out for them the next Sunday. If you attempt to change the hair which nature has given you, we do the same thing. The only difference is that while you are trying to make yours curly, we are trying to make ours straight.

But, my friends, seriously, in all the more fundamental matters the American negro is more like you than any other foreigner in this country; and above and beyond all, we have the same love and the same veneration for the institutions and the history of this country that you cherish. For all of these reasons and more, I am sure you will see to it that the negro is given a fair chance in the matter of education.

Now, to educate the negro is not impossible nor impracticable. Some people say that education to uplift the negro is a failure. It has never been tried far enough or long enough for you to pronounce judgment. Let me give you a few ideas of what has been accomplished as the result of the education we have received. Through the taxes of the southern states, through the negroes' own efforts and through the generosity of people in the North and West in the matter of material advancement, do you realize that through the unselfish work done by educated men and women from Hampton and Tuskegee and other educational centers, the negro race in Georgia has advanced to the point where last year it paid taxes upon eighteen million dollars worth of property. That figure left out of consideration what the negro held in Georgia in town and city lots. In Georgia alone we added seventy thousand acres to our holdings. We own and have acquired since we became a free people, largely through the work of the educated negro, thirty-eight million acres of land, a territory equal to the combined territory of Holland and Belgium.

But we are not only making material progress. We are making educational progress as well. We are surrounded by the most advanced civilization that the world has ever seen, and you may judge of our progress by your progress, and you require a pretty severe test. When we can catch up with the American white man there won't be many other fellows ahead of us. The ability of the American negro is being tested day by day. If we were living in the midst of an Asiatic or Latin civilization, the test wouldn't be so great. But this great, surging, pushing Anglo-Saxon civilization surrounds us. Within a little over forty years we have made progress in getting rid of ignorance. A few centuries ago when the negro landed in this country he was in complete ignorance.

A gentleman asked me a few days ago if I wouldn't advocate compulsory education for my race. I said, "That is not necessary; the negro hasn't advanced that far in American civilization. Open a schoolroom any day and he will fill it. Open another and he will fill that. He honors teachers and schoolhouses and long terms and a chance to educate himself in the American fashion." Some people suggest that the negro can learn from books, and learn a trade, and he can get property, but the weak point of that system is that none of these elements influence or strengthen him in his moral or religious status. To make the general statement implies nothing in the way of work or research. You will find that industrial education has not only helped the negro along economically and mentally, but has strengthened him in his moral and religious life.

It has been suggested that in proportion as the negro gets education he either stands still or goes backward in his moral and religious life. My friends, you don't know the best negroes in this country. You seldom come into contact with them in a way to be able to pass judgment upon their real progress. You judge of the progress of the negro by the reports about those who appear in the police courts. Suppose I would pass judgment upon you by what I see of the loafers in this or any community. I don't do that. I pass judgment upon you by your best representatives and not by your worst; and the negro has a right to be judged in the same manner. Answering that question further, of all the men and women who have gone out from Tuskegee during all these years with our diploma, with one single exception, not one has ever entered a jail or penitentiary anywhere in America. What I say of that institution is true also of Hampton. Fifteen of the older colleges and universities and industrial schools have been examined by me within a few years, and less than a half-dozen of their graduates have ever been sentenced to a penitentiary. The man guilty of crime in nine cases out of ten is the man who has not learned the dignity of labor, has not learned to love work for its own sake, has never become a taxpayer. He is the fellow who is way down. Your duty and my duty as educators and Christians will not have been performed until either through the public school or other agencies we reach down and take these creatures by the hand and help them to stand and be full-fledged, helpful, useful, and happy American citizens.

To indicate further the moral progress of the millions of negroes in this country, do you realize that the negro has sixteen thousand ministers, and twenty-four thousand Christian churches? He has church property to the value of twenty-seven million dollars. Could a worthless, improvident, immoral race have attained to any such progress as these figures indicate?

But, my friends, we have scarcely touched this problem in our methods of education. I have simply given you these facts to show you what is possible. Do you realize that two years ago in our southern states there were fourteen hundred thousand negro children that entered no public school, and five hundred thousand more negro children in school only four or five months out of the twelve? Do you realize further that in your northern and western groups of states you had five dollars spent for the education of each child, while in the southern states less than fifty cents was spent for the education of each negro? There are two races in this country to be educated in sympathy, helpful kindness, and charity toward each other. In our ambition to push for the immediate progress of our own race, we sometimes forget the higher duty to the weak race near us. My friends, we cannot separate the interests of one race from another. Disease, filth, crime, draw no color line. We cannot hold one man down in the ditch without remaining down in the ditch with him.

There are two classes of southern white people, the one class with whose views you are perhaps already familiar through the public press, a class that is abusive in language and manner, that has no faith in any of the efforts to uplift the negro. But there is another class of southern white people, a smaller, but an educated, cultured, brave class, that is just as much interested in the elevation of the negro and in his education as any other class in the North or West, or anywhere in America. The people of this country owe a debt of gratitude to that brave, earnest class of southern white people that they can perhaps never repay. It has been through their efforts working in connection with the educated negro that we have made the progress in the southern states to which I have referred.

In conclusion let me add, that as we go out from this great meeting let us go out and teach the children under our care—black and white—that of all forms of slavery the most belittling, the most narrowing, the most hurtful, is that which makes one human being hate another because of his race or color. I have been a slave once in my life—a slave in body. But human hatred is a worse form of slavery than bondage of the body. Once for all I have resolved that no man shall make me a slave by making me hate him. No man can perform the highest and best service for his fellows while he is limited and circumscribed in his sympathies or activities in working for his fellows. I propose to be free to work in sympathy with all people, whether North or

South, black or white. And in proportion as this lesson is taught to the children under your care, in that proportion will our problems be solved. We have a great and serious problem before us, serious for your race and serious for mine, serious for the southern section of our country and serious for the northern section. But it will be solved in justice to your race and in justice to mine. In proportion as we meet and solve these great problems, in that degree are we strengthened and made more useful, and lifted up into the Christ atmosphere. I am sometimes asked if I don't grow discouraged because of the conditions that surround us. I like to think of the spirit and the example of the colored soldier who was shot down on the battlefield in the South during the Civil War. As he lay upon the ground bleeding and when the doctor came to him and felt his pulse and listened to his heart beat he reported to the chaplain that Sergeant Jones was passing away. The chaplain went to the colored sergeant and said, "You are passing away, isn't there some little token or some word of comfort which I can convey to your loved ones at home?" He opened his eyes and said, "Put your arms about my neck and lift me up just a little." The chaplain did it. The Sergeant said, "Put your hand in my coat pocket and take out that little black book." And then he said, "Feel in the upper corner of that book and you will find something, hold it up before my eyes so I can see it." As he did it the Sergeant lifted himself up on his elbow and glanced at the five dollar bill. Then he looked the chaplain straight in the eye and said, "Chaplain, I will bet you five dollars that I am going to get well."

Now, my friends, I know that this great educational gathering is not the proper place for betting. But I am almost tempted to say I am willing to bet the people of this nation five dollars that the negro race is going to get well, well in body, well in mind, well in heart. And as you go out from this great meeting may all the influence that you possess in public school, in high school, in college, in university, in counting-rooms, and elsewhere, be used in helping my race to get well, and to become independent, strong, useful American citizens.

THE RECONCILEMENT OF CROSS-PURPOSES IN THE EDUCATION OF WOMEN

SARAH LOUISE ARNOLD, DEAN OF SIMMONS COLLEGE, BOSTON, MASS.

Our system of education, from the kindergarten through the university, reflects the ideals of the people and grows with their growth. A change in the social order may be quickly discerned in its effect upon the schools, which are modified to meet the new demands. Whatever the present generation lacked in its training, it desires to secure for the generation to come. So to the original purpose of imparting knowledge and opening books to the student, we have added insistence upon training for character and the preparation for citizenship. In our school ideal, the culture of the individual has become tributary to social service. The youth receives, not merely that he may keep, but that he may share.

We often speak of education as a "preparation for life." But, do we not commonly confuse education with schooling? Our education begins with the cradle and continues to the grave. Our teachers are numberless; our lessons unending. Our schooling is but a beginning of our life's training. We take hold of the threads which give us the clue to knowledge which time shall reveal. Through the school we secure certain elementary knowledge, develop certain tendencies, acquire some measure of aptitude, win some degree of power and of skill, to be afterward supplemented and increased through the training which life itself affords. The gift of the school is beyond price, but at its best, it is but a part of education.

Of the other determining factors in our education, the home is of transcendent importance. It lays the foundation of healthful condition, wholesome experience, and dominating ideal. It provides repeated opportunities for activity, for responsibility, for service. We imitate its examples; we are governed by its principles; we interpret life by means of its teachings. The home provides the stuff upon which the structure of the school is reared. The boy gets out of his book that which he brings to the book; and this is largely determined by the influence, the tradition, the teaching of the home.

The value of schooling itself, then, is largely dependent upon the direct contribution of the home. This alone would make it of paramount importance to the community that in every home wholesome conditions should prevail, the finest ideals be cherished.

We need not dwell upon the influence which secures this teaching for our youth. The years as they pass reveal more and more clearly the results of the mother's patient teaching—the noble example, the fidelity to the allotted task, the self-mastery, and the self-surrender, the clear recognition of eternal verities, the unfailing self-sacrifice.

As the mother, so is the home. For the maintenance of the true home it is essential that the mother—the home-keeper—should be well prepared for her task; and this means not merely the mastery of material conditions for the sake of those whom she serves, but a finer training as well. Whatever may be true of the forum and the market place, in the home must ever be spoken the decisive word in times of moral doubt and spiritual indecision. Here the needle should point clearly to the pole; for the home is not merely a place for physical shelter and material comfort; it is that quiet haven in which the storm-tossed soul may rest for the night, to go forth on the morrow with clear vision and new courage to the voyage on the uncharted sea. In the home should ever be heard the quiet, serene voice which speaks in the ear of doubt and hesitation, "This is the way; walk ye in it." Here should abide the spirit which falters not, even if discouraged, and which knows through all time that "Right is right, since God is God, and Right the day must win."

Strange that any of us who have given our best years to the study of education and who have striven to increase opportunities for the training of teachers, should forget that it is indispensable that these first teachers, these mothers, should be aided in their preparation for their supreme service. Strange that those of us who have such cause for gratitude in the years which we have spent at our mother's feet should forget to measure the meagerness, the littleness, the poverty, of the lives from which such teaching has been withheld.

It may not be the privilege of every woman to devote her life to children of her own; nevertheless, in every woman who is truly prepared for her work in the world, the spirit of the mother is regnant; and the task which will most appeal to her will have in it generous care-taking for the lives of other children, whose weakness or ignorance or pain she may visit with her strength and wisdom and healing. In all our conceptions of the education of women, this function, this privilege, this right, must take precedence. We cannot provide a scheme of education which completely omits the recognition of motherhood; and it is clearly evident that the institution through which the influence of woman will always be most widely felt, is the home—created, enlightened, and transformed by her presence and her completest service.

If the maintenance of a finer order of home is a matter of the deepest concern to the community, it logically follows that the appropriate training of the mother, the home-maker, is essential to the general welfare. We shall be wise, then, to test every plan for the education of women, not merely with questions of immediate expediency or of personal advantage, but always with the thought of the larger contribution to the common good, and the higher function which woman can never surrender. If our schemes of education are compatible with the fullest development in these directions, let us, by all means, urge them on. But, if they diminish her allegiance to these finer ideals or permit her to accept a cheaper substitute for this noble service, let them go—however they may seem to meet the demands of the hour.

The education of women should insure, first, the general schooling which is essential alike to the development of both boy and girl; second—for the sake of the individual, as well as of the community—preparation for self-maintenance, whether this duty is immediately imperative or distantly possible; and third, adequate preparation for the responsibilities involved in the direction of the home.

Most of us will concede the necessity for this threefold education. We should differ, if at all, in adjusting the balance. We shall prevent confusion of thought here, if we keep clearly in mind the needs of three rather distinct groups of women. While the ultimate goal is the same in the education of all, there is a wide variation in the immediate necessities of each group, and in the particular contribution which the school must therefore make.

A large class of girls whose elementary education is incomplete, are in imperative need of such industrial education as will enable them to earn a living wage. Furthermore, through their self-maintenance, the standard of the family life will be immensely advanced. Yet even here, the greater need is evident. Without help from the public school or from private philanthropy, many of these girls will, in a few years, enter homes of their own, untaught and irresponsible, to assume the most sacred duties without intelligent preparation, and to perpetuate a type of home that is a menace to the health and standard of the community.

We owe such girls somehow, somewhere, a glimpse of the better type of home; some definite instruction as to the responsibilities which they will surely assume; such tuition as will insure for their children more wholesome surroundings, cleaner, purer, and stronger lives. At this point, then, the school should supplement the meager education of the home and should insist that the training of the woman should not yield place to the schooling of the wage-earner.

The second group of girls come from normal, healthful homes, through whose influence they secure the essential instruction and training. Fortunately, the necessity of the home, with its limited income, forces them to practice the homely household arts and to care for the various members of the family. Through this simple, rational apprenticeship, they are fairly well prepared for intelligent service in their own homes.

It is, however, increasingly evident that the demands of modern life, and even the school itself, are thrusting into the background the instruction of the home. The disappearance of the constructive activities from the home, the increase of apartment houses, the multiplication of ready-made conveniences, have vastly modified the education of these girls, and the coming generation of mothers and home-makers will lack much that their mothers had known. Any one who thoughtfully studies the life of the school girl in our average community will mark with anxiety this increasing tendency. At this point, the public standard should insist upon testing, not only the academic proficiency of our girls, but their knowledge of household administration, hygiene and sanitation. And if suitable instruction has not been received in the home, the school should make itself responsible therefor. Whether training in household economics shall become an essential part of our school curriculum or not, we should doubtless agree that the knowledge which it would secure and test should be a part of every woman's education, and that the public standard would not be far wrong if it should insist upon testing this knowledge in the case of every woman just as the voter is tested as to his knowledge of the simple elements of reading and writing.

There still remains a third group of women, of larger opportunity and wider knowledge, to whom school and college offer the fullest gifts. Should their present education be modified in view of their woman's task? Will not general culture, high ideals, and the advantages of association make them ready for the responsibilities and opportunities which the home brings?

We cannot too gratefully acknowledge the beneficent service of the college for women, yet it has not completely fulfilled its function; for it is of the deepest importance that the college woman, with her far-reaching influence, should, from the beginning, conceive the true proportions of a woman's education; that her standard of liberal education for woman should include adequate preparation for her sacred and imperative task. But is it not true today that the girl may complete her prescribed course in the academy or college, receiving with credit the diploma and degree, and yet may not have heard within the school or college walls any reference to the tasks and responsibilities which her home will bring to her? Here are "cross-purposes" indeed; for does not this very fact, this exclusion of such reference—and with it the ignoring by common consent any study of subject which would fit her for her essential function—establish a trend away from the proper consideration of such duties and responsibilities? In our efforts to secure a generous education for women have we not come to overemphasize and overestimate scholastic ability? to see it out of proportion to its advantage? to magnify schooling, and to minimize the value of the qualities and of the knowledge which are essential to fullest development—and particularly that knowledge and those qualities upon which her success in her home administration will depend? This deficiency in the training of our most intelligent women leads us all along the line to false estimates. We cannot expect the average parent to take much pains to insure in his daughter's education the thing which the college despises. When public sentiment demands of the college woman the same consideration of and preparation for her greatest life work that the business man gives to his task, and the craftsman to his apprenticeship, it will not be difficult to secure the establishment of rational ideals in the elementary training. But so long as preparation for this highest function is incidentally secured, as we say in school, so long must we expect appropriate instruction to be postponed, and the school task to assume greater importance than the life work.

The conflict of ideals is also evident in our discussion of industrial training. We are in complete sympathy with its immediate purpose. Both men and women must be fitted for achievement. They must be "not simply good, but good for something." Independence and freedom of action, as well as the satisfaction of material needs may depend upon the power of self-maintenance. Furthermore, the care of the family may fall upon the woman as well as the man. Hand and brain must be prepared for the world's work.

Again, the woman, from her home associations, must share in business interests; her intelligent contribution to the family welfare often demands a clear comprehension of the principles involved in business and trade. She, as well as her brother, must learn the meaning of labor—must secure a just measure of values—and judge fairly of adequate compensation for service rendered. On the other hand, success in business in these days often seems to depend upon qualities which are not in keeping with woman's highest service. If competition in trade means disregard of the rights and privileges of others, she has something to lose in becoming accustomed to its atmosphere. The scramble for material success, the full working-days, without margin for thought or repose, the necessary contact with the crowd, are more costly than we realize. Often the free earning and free spending, with the accompanying independence, lead to a false measure of the necessities of life and unwillingness to enter upon the conditions of the simple home supported by a small income. Further, the quiet and the essential limitations of the home often seem insupportable to the woman who has been dependent upon the excitement of the more public life, the coming and going, the frequent meeting of strangers, the so-called "society." Does this not call for clear vision, wise choosing, and ready renunciation of the lesser good?

At best, women cannot prepare for their life work as men prepare for theirs. For the fact cannot be ignored that this work may be abandoned after a brief service for the administration of the home. If the term of service is short and the workers must be frequently replaced, must we not assume logically that the compensation will be limited by the instability of tenure? And further, in her relation to business interests, where the need of the individual is forgotten in the demands of the common work, the woman's nature meets a serious problem. Accustomed to share in the family life, to devote herself to its interests, she carries a double burden. Illness or hardship in the home arouses her sympathy and seems to demand her personal service. The contract obligation holds. She goes from home with an aching heart and fulfils her daily task under the deepest tension. The more womanly her instincts, the more bitter this strife between the two obligations. The essential service of mother, sister, or wife may be thus frequently at war with the business obligation. Which is the more binding upon the woman? How can this problem be solved? Can it be deliberately ignored?

It may be that the wage-earning woman will make clear to us that the home-maker is likewise self-maintaining and not dependent. We shall learn, perhaps, to measure her service in the home at its true economic value. We may learn also, in dispensing charity, to enable the mother to care for her children in her home, instead of providing the day nursery to care for them while she scrubs at the wash board or toils in the factory. When the wage-earning and the home-making clash, to which side shall we send reinforcements?

We shall agree, I am sure, that the characteristics which are essential to successful home-making must not be forfeited for success in wage-earning. Advantage in business must not cause the woman to forget the rights and privileges of others. The lure of public life must not blind her to the higher privileges of the family circle. The strife for material gain must not crowd out the "spirit which giveth life." Personal ambition must with her yield place to the joy of self-sacrifice.

May this not mean that she must consent to a second place in business, in order to maintain the first place in the home? that she must abandon certain privileges in the administration of the world's afiairs, in order to hold fast the still greater privilege, won by the complete devotion of wife and mother?

When we sufficiently honor the service which every good home renders to the community; when we measure rightly the large opportunity for civic service which the home confers upon the educated woman, shall we not gladly sacrifice immediate personal advantage and ambition for the privilege of the greater service?

Accepting this standard, the school must necessarily provide suitable opportunities for appropriate training: for the poor girl in the tenement-house district, house-keeping centers, where she may learn how a similar home may be economically and wholesomely administered. For the grammar school, a strand of elementary science and technical training which will make her familiar with the household arts, and so far as may be, the principles underlying them. Technical schools of household arts, for more complete training and related courses of science and art for high school and college which will provide not only for preparation for home-keeping, but will also secure adequate provision for teachers of household science and art. And with these such study of the relation of the home and its administration to the problems of economics and sociology as will set a finer standard and bring back into the home the enlightened service of our most intelligent women.

With this clearer conception of woman's supreme service, and with this significant contribution from school and college, will disappear the present cross-purposes in the education of women.

THE PUBLIC SCHOOL AND THE IMMIGRANT CHILD

JANE ADDAMS, FOUNDER OF HULL HOUSE, CHICAGO, ILL.

[*Stenographic report*]

I am always diffident when I come before a professional body of teachers, realizing as I do that it is very easy for those of us who look on to bring indictments against results; and realizing also that one of the most difficult situations you have to meet is the care and instruction of the immigrant child, especially as he is found where I see him, in the midst of crowded city conditions.

And yet in spite of the fact that the public school is the great savior of the immigrant district, and the one agency which inducts the children into the changed conditions of American life, there is a certain indictment which may justly be brought, in that the public school too often separates the child from his parents and widens that old gulf between fathers and sons which is never so cruel and so wide as it is between the immigrants who come to this country and their children who have gone to the public school and feel that they have there learned it all. The parents are thereafter subjected to certain judgment, the judgment of the young which is always harsh and in this instance founded upon the most superficial standard of Americanism. And yet there is a notion of culture which we would define as a knowledge of those things which have been long cherished by men, the things which men have loved because thru generations they have softened and interpreted life, and have endowed it with value and meaning. Could this standard have been given rather than the things which they see about them as the test of so-called success, then we might feel that the public school has given at least the beginnings of culture which the child ought to have. At present the Italian child goes back to its Italian home more or less disturbed and distracted by the contrast between the school and the home. If he throws off the control of the home because it does not represent the things which he has been taught to value he takes the first step toward the Juvenile Court and all the other operations of the law, because he has prematurely asserted himself long before he is ready to take care of his own affairs.

We find in the carefully prepared figures which Mr. Commons and other sociologists have published that while the number of arrests of immigrants is smaller than the arrests of native born Americans, the number of arrests among children of immigrants is twice as large as the number of arrests among the children of native born Americans. It would seem that in spite of the enormous advantages which the public school gives to these children it in some way loosens them from the authority and control of their parents, and tends to send them, without a sufficient rudder and power of self-direction, into the perilous business of living. Can we not say, perhaps, that the schools ought to do more to connect these children with the best things of the past, to make them realize something of the beauty and charm of the language, the history, and the traditions which their parents represent. It is easy to cut them loose from their parents, it requires cultivation to tie them up in sympathy and understanding. The ignorant teacher cuts them off because he himself cannot understand the situation, the cultivated teacher fastens them because his own mind is open to the charm and beauty of that old-country life. In short, it is the business of the school to give to each child the beginnings of a culture so wide and deep and universal that he can interpret his own parents and countrymen by a standard which is world-wide and not provincial.

The second indictment which may be brought is the failure to place the children into proper relation toward the industry which they will later enter. Miss Arnold has told us that children go into industry for a very short time. I believe that the figures of the United States census show the term to be something like six years for the women in industry as over against twenty-four years for men, in regard to continuity of service. Yet you cannot disregard the six years of the girls nor the twenty-four years of the boys, because they are the immediate occupation into which they enter after they leave the school—even the girls are bound to go thru that period—that is, the average immigrant girls are—before they enter the second serious business of life and maintain homes of their own. Therefore, if they enter industry unintelligently, without some notion of what it means, they find themselves totally unprepared for their first experience with American life, they are thrown out without the proper guide or clue which the public school might and ought to have given to them. Our industry has become so international, that it ought to be easy to use the materials it offers for immigrant children. The very processes and general principles which industry represents give a chance to prepare these immigrant children in a way which the most elaborated curriculum could not present. Ordinary material does not give the same international suggestion as industrial material does.

Third, I do not believe that the children who have been cut off from their own parents are going to be those who, when they become parents themselves, will know how to hold the family together and to connect it with the state. I should begin to teach the girls to be good mothers by teaching them to be good daughters. Take a girl whose mother has come from South Italy. The mother cannot adjust herself to the changed condition of housekeeping, does not know how to wash and bake here, and do the other things which she has always done well in Italy, because she has suddenly been transported from a village to a tenement house. If that girl studies these household conditions in relation to the past and to the present needs of the family, she is undertaking the very best possible preparation for her future obligations to a household of her own. And to my mind she can undertake it in no better way. Her own children are mythical and far away, but the little brothers and sisters pull upon her affections and her loyalty, and she longs to have their needs recognized in the school so that the school may give her some help. Her mother complains that the baby is sick in America because she cannot milk her own goat; she insists if she had her own goat's milk the baby would be quite well and flourishing, as the children were in Italy. If that girl can be taught that the milk makes the baby ill because it is not clean and be provided with a simple test that she may know when milk is clean, it may take her into the study not only of the milk within the four walls of the tenement house, but into the inspection of the milk of her district. The milk, however, remains good educational material, it makes even more concrete the connection which you would be glad to use between the household and the affairs of the American city. Let her not follow the mother's example of complaining about changed conditions; let her rather make the adjustment for her mother's entire household. We cannot tell what adjustments the girl herself will be called upon to make ten years from now; but we can give her the clue and the aptitude to adjust the family with which she is identified to the constantly changing conditions of city life. Many of us feel that, splendid as the public schools are in their relation to the immigrant child, they do not understand all of the difficulties which surround that child—all of the moral and emotional perplexities which constantly harass him. The children long that the school teacher should know something about the lives their parents lead and should be able to reprove the hooting children who make fun of the Italian mother because she wears a kerchief on her head, not only because they are rude but also because they are stupid. We send young people to Europe to see Italy, but we do not utilize Italy when it lies about the schoolhouse. If the body of teachers in our great cities could take hold of the immigrant colonies, could bring out of them their handicrafts and occupations, their traditions, their folk songs and folk lore, the beautiful stories which every immigrant colony is ready to tell and translate; could get the children to bring these things into school as the material from which culture is made and the material upon which culture is based, they would discover that by comparison that which they give them now is a poor meretricious and vulgar thing. Give these children a chance to utilize the historic and industrial material which they see about them and they will begin to have a sense of ease in America, a first consciousness of being at home. I believe if these people are welcomed upon the basis of the resources which they represent and the contributions which they bring, it may come to pass that these schools which deal with immigrants will find that they have a wealth of cultural and industrial material which will make the schools in other neighborhoods positively envious. A girl living in a tenement household, helping along this tremendous adjustment, healing over this great moral upheaval which the parents have suffered and which leaves them bleeding and sensitive—such a girl has a richer experience and a finer material than any girl from a more fortunate household can have at the present moment.

I wish I had the power to place before you what it seems to me is the opportunity that the immigrant colonies present to the public school: the most endearing occupation of leading the little child, who will in turn lead his family, and bring them with him into the brotherhood for which they are longing. The immigrant child cannot make this demand upon the school because he does not know how to formulate it; it is for the teacher both to perceive it and to fulfil it.

THE SCHOOL AND THE PRACTICE OF ETHICS

ELLA FLAGG YOUNG, PRINCIPAL, CHICAGO NORMAL SCHOOL

The nineteenth century was a century of progress. Its progress did not lie, however, in finished achievements. Every type of invention and every form of human endeavor bequeathed by the nineteenth century to the twentieth are but suggestions of possibilities not yet attained. The roll of inventions is long; and because of its length some assume that all the needs of mankind will soon be fulfilled. If the electric car, the phonograph, the X-rays, and all other inventions depended for their future upon mankind's needs only, it might be possible that their history could now be written. The inventor and the builder, however, were not the first in the fields of electricity, acoustics, and radio-activity. They were preceded by the scientists, the theorists who had developed fundamental conceptions of the forces of nature and their modes of action. From these conceptions scientists have thru experimentation been able to standardize nature's forces and state working hypotheses for the ways in which those forces will act. It is the conceptions of the forces of nature, their limitations and possibilities, called the laws of nature, that are back of the marvelous inventions and works in the world of human industry, and of more marvelous ones than have yet been wrought out. The great conceptions are elemental and their suggestions are numberless.

In like manner, conceptions of the powers of the human being and the modes of growth of these powers are influencing teachers to new methods and new subjects. These conceptions are far-reaching and they originate in philosophic minds. They contain, imbedded in their general, abstract statement, suggestions for the gifted teacher; suggestions of the laws underlying the forces in childhood and youth. It is by the comprehension of these forces and the laws controlling them that we teachers may devise (or as it would be expressed in the industrial world, may invent) that organization of the school which will help to the best solution of the problems of contemporary life. We have not yet so fully grasped the conception of development in childhood and youth as stated by the nineteenth-century philosopher as the inventors and the captains of industry have grasped the conception of the forces of nature as stated by the scientist. There is one conception in philosophy that will yet influence the social world more than the speculations about electricity, light, and heat have affected the industrial world. I mean the conception that character develops in childhood thru the exercise, the activity, of the ethical judgment.

The American home and the American school more than those of any other country stand for independent action in childhood. But conduct may be independent of authority and yet not be ethical. That such is the condition in America is shown in the resolutions adopted by this Association last year at Los Angeles and by the general tenor of editorials in newspapers and articles in magazines. It is my purpose to consider wherein the theory of independent judgment fails, even tho America has taken an advance position in the matter of moral training; to consider the effort within the school to fit children and young people to meet the demands which life will make upon their ethical nature, and in doing this I shall have in mind the conception of character developing in childhood thru the exercise of the ethical judgment.

Ethics is the study of conduct from the standpoint of right, of duty, of responsibility, of goodness. Ethical training is the cultivation of the judgment of values in conduct. This judgment of values in conduct is always an expression of the character of the judger. All through this country, questions bearing on work, value in conduct, are discussed in the schools. That which is, the actual conduct, is tried, measured, by the children's and by the students' opinions of what ought to be, their ideals of honesty, kindness, generosity. And yet, on every hand, there is adverse criticism and reflection on the training of the young American. There are two standpoints from which the work of the school is judged: one, that from which is weighed the power of the elementary- or the high-school graduate to give valuable service in the field of labor; and the other, that from which is tested the morality, the character, and conduct of the young people in assuming responsibility and in interpreting their duties to others.

Inspection of courses of study in the various parts of the country shows a gradual disappearance of direct instruction in ethics. Many persons who are not familiar with the public elementary and high schools, except as these schools were a quarter of a century ago or as they are outlined on paper, infer that there is neither religious nor ethical training in them. This is a great mistake. In every public school, there is memorizing of literary selections, of poems, and of addresses that are replete with ethical or religious sentiment. In the upper grades of the elementary school and in the classes in literature in the high schools much attention is given to the discussion of novels, poems, and dramas with the stress laid upon the ethical element involved. So common is the tendency to condense the comprehensiveness of the entire book or poem studied into the ethical lesson taught, that professors of literature in the colleges and universities sometimes complain that literature is analyzed as a vehicle for ethics instead of being "a work of literary art interpreting life." The order of progression in the use of literature should be, first, the experience, and then the poem or selection that will afford a larger, a richer, and a more suggestive setting for it.

In teaching ethics there should be a like method of procedure. There would be the expression of the impulses to selfishness, to greediness, to generosity, and these impulses would be modified by other impulses and motives; but always out of the original emotions should the children be led to the appreciation of the ethical situation; be led to the ideal of the virtue which we would have them embody in their lives. The wise mother does not teach her four-year old child courage, or generosity, or truthfulness by a word-picture about courage or generosity or truthfulness. She takes the hand of the little one in hers and helps him to a feeling of pleasure in overcoming fear and courageously advancing toward what has been a fearful thing. She alluringly sympathizes in the generosity as the little one shares his food or his playthings with another. In this simple way she begins to train the ethical judgment of her child. It is in moral activity, as in intellectual, that our ideas and ideals are developed.

The history of education in the nineteenth century is one of experimentation in devising means in the elementary school for founding knowledge in experience. In the high school, the science laboratory and the manual-training shop have been introduced as means to the end sought. But, if the problem of founding intellectual knowledge of science and art and literature in experience is as yet too deep for the school, what shall one say of the possibility in the school of founding in experience ideals of conduct? The very conditions underlying the school organization make almost fruitless the conception of character-developing in childhood thru the exercise of the ethical judgment.

It is true that changes have been made in the organization which has been passed down to the twentieth century. In America, the relations between teacher and pupils have been materially modified. These changed relations have been construed by a few writers on education as indicative of what they call mollycoddling. The fact is that the ideal of the good teacher has been influenced by the democratic theory that governments derive their just powers from the consent of the governed. So, in a singularly intricate situation, the teacher finds himself constituting the government, with absolutely no reference to the wishes of those to be governed, and yet under the necessity of maintaining the position that the pupils consent to the government. The democratic theory of government may halt occasionally, confused when a sharp and unexpected regulation arouses a spirit of discontent or opposition; but that the wheels of government are set going thru discussion and explanation of the command or regulation in no way suggests, to one who is familiar with American children or young people, that the government is maintained by mollycoddling.

In the idea of the derivation of power from the consent of the governed, there is a movement in the direction of founding the social judgment in the emotions and in co-operative action. But immediately upon entering into a consideration of the virtues which are cultivated in the school, we find the theory to be individualistic. Punctuality in attendance, promptness in the performance of duties, honest endeavor to prepare lessons independently of surreptitious aids, application to tasks, are all qualities desirable in large measure in every member of society. Without these qualifications developed in its members society would be in a state of uncertainty as regards what to expect in the way of habitual response to engagements to do or to be. The self-control of the boys and girls who in their school career live up to the standard of conduct fixed by the school should not be underestimated. This standard, however, lacks that subtle element which is indispensable to life—the element of growth.

There is prevalent the notion that at the age of forty years or more one's ideals of honesty, truth, generosity are less true, are more tinctured with self-seeking than in the earlier years, especially the years between fifteen and twenty-five. It may be a mistake to conclude that the earlier ideals were not genuine; but to say that they lacked the vitality which insures growth would not be amiss. How to develop the ethical judgment so that the ideals shall deepen and give true value to the experiences of life is, for the school, a question of the deepest import.

Writers on ethical training usually divide the school in its influence on character-building into two parts; first, the classroom, with its regular, orderly life, in which stress is laid on punctuality, industry, obedience, quiet; second, the playground, with its democratic life, in which are acquired knowledge of human nature, self-reliance, friendship, and a sense of obligation to play fair. In other words, the schoolroom affords opportunity for the individual to acquire power to stand alone, while the school yard or playground presents conditions that facilitate growth in action with other persons.

One does not understand those writers to imply that the work in the schoolroom consciously limits the training to things intellectual and to each individual in isolation, and that the playground purposely trains in a knowledge of the social virtues. They are usually endeavoring to show that the individual and the social training are secured by means of the two divisions of the school. It is interesting to note that the equilibrium of the children as individuals and as members of society is secured in two distinct situations. In one, "the teacher manipulates the class as a whole. He knows how to bring every part of it to the support of every other part." In the other situation the children initiate and control the movements of all parts.

The assumption that these two divisions provide individual and social training is one of the reasons why the school does not make effective in its classrooms the conception of character developing in childhood thru the exercise of the ethical judgment. Much stress is laid upon the value of class recitation in that the teacher probes the statements of the pupil reciting, and then holds the other members of the class responsible for correction of all mistakes made and for omissions; and also in that the children learn by detecting and correcting the blunders of the dull and the indolent. Outside of school we think a child ill-natured if he calls attention to the flaws in the work of another child, but we admire his character if he studies to assist another who fails to understand a question In school the boys and girls have no responsibility for the improvement of one who has not reached the level of the class in behavior or learning. To be good is to ignore his existence. Out of school, he may be a subject for attention and help.

The attitude of the school toward the ethical judgment when subjects in knowledge are under consideration is amazing. Knowledge is unlike material things. Two people cannot have the same dollar and each spend it; but they can have Lincoln's address at Gettysburg and each one give it to hundreds of other people. The richness, the depth, the value of the history of the discovery of America may vary in as many degrees as there are children in a class. These variations originate in the different experiences of the different children, in the different predominating types of imagery, and in their powers in thought. An ideal school is not one in which the teacher probes, and children watch the dissection, pouncing upon the mistakes. It is one in which the members gain strength and individuality thru co-operative effort to help make the bit of knowledge the common possession, as full and complete as possible. This united effort is not a shouting of many answers from which the teacher selects the best. That travesty of co-operation gives neither mental nor moral response.

In recent years, experiments looking toward the unification of the children and teachers have been made in different places. The experimenting schools have been known sometimes as the school city, sometimes as the self-governing school, sometimes as a school under student control. These experiments have originated in a recognition, by the teachers, of the individualistic training of the school life and of the need for awakening in the children a sense of responsibility in making the school what it should be. The teachers have, as I understand the principles underlying the self-governing schools, maintained the same method of questioning, probing, and dissecting that is common in intellectual work with classes of the old type. The self-governing idea has been in large measure isolated from the classroom instruction. Instead of the children's learning helpfulness, generosity, politeness, truthfulness, and fair dealing thru interactivity in class, they practice it as responsible members in another part of the school—in the government; the teachers, on the other hand, efface themselves in the management of the yards, halls, or corridors, and in certain prescribed meetings. Official position, voting, punishing by means of committees of children—in short, the machinery of government—would seem to be too prominent.

Of course the children get some benefit thereby. The men and women conducting the experiment are in advance of those of us who sit dumbly accepting whatever has been established, whether it be good or bad. But, do not the experiments come under the methods of socialism, ignoring the function of the teacher as a leader in training the conduct of the boys and girls outside the classroom? That a committee of children shall pick up the scraps of paper is not so valuable in the life of the village, town, or city, as that the teachers and children keep the premises tidy by not creating untidiness. The mild rudeness of high-school boys and girls in the corridors and in the streets when starting in large numbers from the school house are indications, not of the need for pupil monitors, or aldermen, in the school halls and yard, but of the crying need for the association of the teachers with the pupils in a relation that makes the culture and urbanity of the teacher energies that coöperate with the crudity and vivacity of the boys and girls.

For teachers and parents to withdraw from the social gatherings, the debates, the games of the children and young people is to confess to an unsympathetic attitude toward the social nature of childhood and youth. More than that, it is to leave the training of the ethical judgment to chance. Not only in work but in amusements also may the ethical judgment and the character be formed. All of our acts involve a recognition of our relation to other people; but those acts are not necessarily ethical. When children and young people find their amusements entirely in the company of those of about their own age and away from adults, many forms of conduct and attitudes toward others are acquired thru imitation of the assertive ways of the leading spirits. They do not consciously carry themselves rudely, insensible to the welfare of others; they conform to the behavior of their set and so behave in the manner congenial to the self-willed leaders. Without direction, without conscious deliberation, the cue is taken from the usual conduct of the crowd, and we have what is known as the American type.

It is not segregation of girls as in Turkey that we need. It is not duennas and chaperons whom the young people ofttimes study to outwit, that will refine and elevate the American type. We must make effective the conception of character developing thru the exercise of the ethical judgment. Parents and teachers must interest themselves in the activities of the young; not alone by furnishing the means for enjoyment and for work, but by keeping alive, thru participation and association, a relation between the young and the mature. If teachers act as repressive forces at games, clubs, and other forms of social activities of the young people, then the question arises: What is the relation between those teachers and their pupils or students?

In affairs of a truly intellectual nature, we appreciate the final test of the strength of the individual to be the power of judging the conditions that control the subject-matter. If we could get away from the notion that our ideas about things right and wrong are intuitive, and that, altho our conceptions of veracity, justice, compassion, benevolence, are valid in experience, they are yet beyond the realm of experience and knowledge, we should have a responsibility in training the ethical judgment similar to that we now appreciate in training the intellectual judgment. There is another reason for our hesitation in recognizing our responsibility for making conditions give play to the ethical judgment. We share the popular belief that the moral judgment is cold and unsympathetic. Feeling that in affairs of life it is necessary that sympathy be aroused if one is to receive his just dues, we try to stir the imagination thru situations outside the experience, hoping to arouse the emotion of sympathy thereby. The fact is, that in genuine situations the emotions would be stirred, and then the imagination and the judgment, and, as we all know, the character, the sum total of the motives and aspirations of the judger, would become a part of the material on which he or she would pass judgment. It is right here that sympathy, the movement of the disposition, the character, along the line of action begins. Such judgment, the result of the character, all that the boy or girl is, deciding upon action that satisfies his or her understanding of the great principles of honesty, justice, fairness, kindness, purity, will react into the character and make it stronger, more sympathetic, truer.

Such training of the ethical judgment can develop only out of work and amusement in which there arise critical situations that command the conscious and sincere effort of the boy or girl to influence the situation by the activity in judging. Here and there great teachers have lived with the children and young people in the learning and the playing, developing both the scientific and the ethical judgments. How to do it in the fluctuating membership of crowded schoolrooms is the greatest question ever set for us. When our own ethical judgment shall have become surer, thru activity in the life of the school, then shall we find the solution of what now seems to be an unsolvable problem.

THE PERSONAL TOUCH IN TEACHING

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There are three questions which are the inevitable and fundamental questions in the education of every human being. They are his relation to the world he lives in, his relation to his fellow-men, and to his own self. And there are three great classes of study which predominantly, or more than other studies, aim to provide answers to these questions. Man's place in the world of nature is the problem to which science attempts the answer, and man's place among his fellow-men is the problem to which what we may call history, in the large sense, attempts the answer. And man's own nature, his own expression, his range of thought and feeling and action, is the problem to which what we may call literature, in the large sense, attempts the answer. Yet in all three problems there is just one common element—the man himself; and self-knowledge, whether it be in reference to man's place in nature or among his fellows or directly of himself, remains the one central, deepest knowledge the best education can give. And when the three problems of education are focused and viewed with reference to this one common element, our human nature, there emerges for every human being, slowly gathering strength with the years, taking tone and deep color with experience, what we may call his philosophy of life, his ascertained general principles of thought and action. When that is done, the work of education is done for him, so far as it can be done. And any other questions unsettled, unsolved—imperious as they are—must be answered from the deeper region of religion. But religion and education, while inseparably connected, are different questions—and the one practical center of everyone's education is the purely human problem, namely, his own self. He must begin with himself and find himself truly, if ever he is to succeed in finding truly his place among his fellow-men and his relation to the world of nature. Education is thus first, last, and always a personal question. And the great teacher is the man of great personality, in whom nobility means more than attainments, and therefore the man whose personal touch upon the student is sure to be quickening and ennobling. Any other teacher than this must be judged a failure, no matter what his scholarly attainments. Not that he should be an ignoramus, for he must know surely and clearly the subjects he is teaching, but he must know even more profoundly and sympathetically the objects he is teaching, namely, the other human beings, his pupils, for whom he is guide and leader.

If this be true, as I devoutly believe it is, then the old saying of Pope that "The proper study of mankind is man," the proper knowledge for each of us is self-knowledge, the highest conquest is self-conquest, receives new emphasis. And should it not be so? Yet are we not today too much in danger of being diverted from knowing ourselves, our own personalities, our own capacities, to the things that are outer, to things that are indeed related to us, but yet are not ourselves. And particularly, to narrow the question sharply down to the domain of school and college and university education, are we not more and more, with the growth of numbers, with the growth of appliances, with the growth of machinery, with the growth of devices, losing sight of the individual student or teacher, losing sight of the individual human soul, and dealing with it in herds and masses and aggregates? I think that is true. If there ever was a country in the world that has shown capacity for organization, in education as well as outside of it, that country is our own. If there ever was a place where machinery of all sorts, intellectual, social, commercial and physical, was invented and developed and differentiated beyond all expectation of past generations, it is right here. And what I think is happening in our schools and colleges, and has been happening for the last twenty-five years, is that we have become worshipers of organization, worshipers of machinery, worshipers of plans and devices and rules and formulas, instead of discoverers of the individual student, finders of human souls, fishers of men.

Let us keep to this theme. If it be true that personality is the be-all and end-all of school education, if it be true that a man's character is more than his attainments, if it be true that it is more important for every boy to become "his own man" than it is to become anything else, then it seems to me there are a few things we can say in regard to the loss of that personal touch in teaching—or rather, let me say more hopefully, in regard to the reviving, the restoration, and reimposing of that personal touch in teaching—on which the best results must forever depend.

Someone will say at once, "You cannot take every boy and every girl, one by one." Of course, we cannot; it is not desirable that we should. I fully believe that the institution which, for want of a better name, we will call a school—a combination, a body of pupils assembled under teachers with definite rules—would be necessary if we had limitless means and teachers of the most perfect power. Why? Because one of the three problems, as I have said, is not only for the boy to find himself in education, but to find his place among his fellows; and there the school comes in superbly and necessarily as the intermediate training-place between him and the larger society of the world. And so we shall always need schools and classes and a certain minimum of machinery; for the class is just as necessary for one part of education as individual instruction is for the other part of education. Let us see how it works. First of all, there are classes of students, according to age and proficiency. There is your student of tenderest years, your boy or girl a little older, your boy or girl in a high school, your student in college—and so on. Then, too, all students of the same age are not naturally "in the same class," either in point of brightness or energy or proficiency. So a second classification is needed among students of like age. We all admit that. Then comes another classification, due to the fact that every student can take and should take more than one study at a time. I am one of those who believe that very few students can take more than four or five things and do any justice to them; but let us admit, at any rate, that a few things should be studied simultaneously by everyone. So there you come again to the question of classification of students, not only by age and attainments, but classification by allotment to the several subjects of study they pursue. But what subjects of study? Only a few of the best things; and these things, in the main, must be chosen for the student—chosen by those who do know, not by those who do not know, what are and what are not the things of central and fundamental worth. There are things of less worth, things of more worth, things of still greater worth, and things of supreme worth. All studies are not equally valuable, any more than all men are equally sensible. And let us say in passing that this remains true, no matter how insistently certain studies are given equality of space in school programs. Calling them equal does not make them so.

Classification, then, is needed, because schools are needed: classes of students and classes of studies. Have we not done all that? Have we not "graded" our schools lengthwise and crosswise all the way "from the gutter to the university," as Huxley put it? Have we not done all that again and again in finest elaboration? Has not our country spent lots of money on buildings and playgrounds and salaries and textbooks and every variety and assortment of equipment, useful and useless? Have we not today a great deal to show for it, a great deal of good? Indeed, we have—a vast deal of energy, of almost crusading enthusiasm, but with it all an almost pathetic belief in systems of routine, in the outside scaffolding rather than in the inside building. We are working too far on the outside and from the outside, and doing it by machinery. Is the "young idea" to be wakened to literature? Then "carefully graded" selections of "memory gems" are set on his mind to adorn it. Is he to learn numbers? Behold the colored joss-sticks that are used to teach him to count. His education is laid on him in set patterns, like fresco color in stencil on plaster. The trouble today with our American education, from the kindergarten to the university, is that the tendency of our system is to make the teacher no longer a teacher having individual personal power, but part of a monotonous machine. Thus organization and devices and appliances, and the fads and novelties, which are in fact little more than unreasoned aberrations of discontent with the monotony, become in the eyes of many the be-all and end-all of education. Even the system of classes of scholars and the system of classes of studies, needful as it is, develops its own evil. This evil has been somewhat grimly called the "lock-step" in education; classes turned out all of a pattern, classes turned out with their distinguishing stamp, not the variety of excellence, but flat mediocrity—all alike not merely in the things wherein they ought to be alike, but in the things wherein they ought to be unlike.

Now, the things that should be freest, it seems to me, ought never to be made subject to constraint, and among the things that should be freest are the natural actions of the human mind in study. If it is not the pupil's own act, if it is not the pupil's own impulse, then it is outside him, and all the machinery and regulations and rules we make will fail to make it his possession for life; an effective, powerful force in everything he thinks and does. And so I want to plead a moment, if I may, for the introduction of more of the personal touch into the regular class teaching. An easy thing to say, but how hard to do. How can it be done? Well, to begin with, the very perfection of the grading system of our schools, considered as a piece of machinery, suggests at once the way. We are now able in American schools, except the smallest, to have our different sections or divisions of classes homogeneous. Wherever that is secured, and classes of ten, fifteen, or twenty sit before you, each composed of pupils of either the highest or mediocre or lower type, you then have an opportunity which you could not have with a mere miscellany before you, because those who sit before you are near enough alike to flock together, to be within hail and call, and to be within measurable reach of whatever instruction is adapted to any particular one in that class. This means a great deal. Under such favorable circumstances, already secured, the thing to do is to change radically the mode of recitation. Of course, we all try to make a recitation something else than simply hearing the pupils say over and over again imperfectly what they do not know. Yet how many recitations have been almost necessarily of that character—not because the teacher wanted it so, but because the machinery almost compelled it. Recitation is the oldest art in education. It goes back to the very birth of teaching, and the true father of teaching was the philosopher Socrates. I wonder if his dialectic method is not too much in disregard. Yet it is really the one sure way of teaching. And what is there in it? Just two things: first, to make clear to a whole class or single pupil what are the things he does not know about a particular subject. Secondly, to make clear to that pupil what is the particular scrap of knowledge he does possess, and then on that little, tiny piece of knowledge rescued out of oblivion, to build other knowledge, and thus out of the pupil's own striving and making to develop still more knowledge. Now it seems to me this cannot be done effectually where the effort is to get up as many pupils as possible in each period and hear them. It cannot be done by sending a whole lot of boys or girls to the blackboard and letting each of them work an example, or a whole string of examples. But it should be done, to a large extent, in this way: By making the whole class which is before you learn by means of the performance of one pupil who is reciting. I don't know how to put this clearly, perhaps, and yet it is something as follows: It means that in a school period very, very few are called up to recite. It means that a pupil is selected for the purpose, is asked to read or explain something, and that his performance is made the center of instruction for all the others. It means that he is to be encouraged to say what it is he does not know, irrespective of marks. It means that, as his self-confessed ignorance comes out, the little implications of knowledge he has also come out in his recitation. There are ten, twenty, or thirty other boys or girls seated about, perhaps with notebooks and pencils, taking down points for themselves, or at least on the alert with any question they may have, watching the mistakes the "other fellow" has made in his attempts to get out his lesson, and suggesting corrections or alterations, catching your remarks "on the fly," and all on the jump to respond to anything the teacher may say.

Now, it seems to me, that method of instruction, which I am told is a very ancient one, practiced among the Hindoos ages ago, is sure to be most stimulating. That I, the teacher, act by means of a second person, a pupil, on twenty others, means there is really a little friendly trial for mastery going on. The quick give-and-take, the little responses, the sudden thrills, the wakening start that occasions a questioning in this dull mind here and that sluggish mind there, are all brought out by using the single reciting pupil as the instrument in the hands of the teacher for teaching all the others. Just as a sympathetic artist can take a violin and play on it to the delight of an audience, so can the great teacher in this way, by applying the personal touch in teaching, make out of that individual pupil the instrument on which he shall play and by which he shall move the entire class.

But then, there is a second thing in regard to the personal touch in teaching. After all has been done that can be done in the way of class instruction, I am sure we have not done our whole duty, because the varieties of mind are so many and diversities of circumstance, of origin, of opportunity are so endless, that hardly any group of twenty or thirty boys that will sit before us will be, or ought to be, fully homogeneous. This is most true in every school in regard to the newly received pupils. The first few months are needed to get them into shape. They are so different, they are so diverse; they don't quite go together; they don't quite understand each other or the teacher; a common sympathy has not been established; a common consciousness has not been developed. And even after it is developed, there still remain the laggards, those who stray to the side, the eccentric, the fitful, the boy of weak will, the boy of perverse will. The attention we have to give to these irregular students is vastly out of proportion to the number of the other students and the attention they receive. Then, too, there is the boy of rare gifts and high desires. He must not be unnoticed—for he may turn out to be worth a hundred others. And so I think the personal touch must be supremely exerted in a second way, and that is by individual instruction after the tutorial method. What is there mysterious about it? Something, I am sure. Suppose you and I talk to each other alone. There are but two of us. Is there anything so intimate in the exchange of thought as that conversation of one person with another, that one-to-one meeting, the face-to-face vision, that closest intimacy of all thinking, where, as Tennyson says,

> Thought leaps out to wed with thought
> Ere thought can wed itself with speech.

And so the more we can get to talking or dealing with the individual boy and girl singly, the closer we come to their particular needs; the more intimate, the more sympathetic, the more friendly, the more lasting is the effect. Has it not been so always? The greatest students in this world have been formed one by one by great masters. It is an old figure, but is it not almost literally true, that the runner carrying the torch of knowledge hands it on to one other, and he to the next, and so on to the next? And anything that brings the student close to the teacher, so that he feels that he has an immediate access, not as one of a crowd, not as one of a company, but as an intimate trusted younger friend, seems to me is going to double and treble and quadruple the progress of that student. You say, "Very good, but how is it to be done? It is an enormously expensive thing, and we are doing all we can now." So we are with what we have, in the way we are doing it. But I venture to suggest that an improvement can be made with little or no expense for introducing this tutorial system in the schools. The germ of it is already at work in some of our schools, and most satisfactorily, by the employment of the so-called pupil-teacher. How shall I put it? Suppose you take any school with its number of weekly exercises. Then let us subtract from those weekly exercises one-fourth. Take the risk. It seems a great risk, but it is not so great as it seems. Hand over those class-periods for this other purpose. You say, "Yes, but where are the teachers?" Where but in the upper grades? Where but among those who have already nearly finished their school work with high success? There will be in a large school of a thousand, let us say, perhaps fifty such boys and girls, in the last year or two of the course, who could be relieved from some of the routine and assigned to some of these defective, irregular students, at any rate. In some schools more could be done. It does seem to me that the chance of doing good is so great that it is well worth while to try that method. We need not hesitate. I have seen the experiment of trying the preceptorial teaching in my own college in the last four years. We cut off about one-fourth of the class exercises and assigned that fourth to this intimate, personal conference; and I do not hesitate to say that the result has been that the lowest part of the class has disappeared, and not by destruction but by its elevation. I can hardly tell you what a transformation it has made in the rank and file of our students to find that they have personal friends to whom they may go, who do not mark them, but who are their guides and their counselors, who reënforce "on the side" the instruction of the classroom. It is that personal nearness which enables the preceptor to fit his counsel and help to the special need of the student.

If the fault of purely individual education has been that it overlooks the need of class instruction, the training of men in their great common resemblances, which must always be a fundamental thing; if at the same time the fault of exclusive class instruction is that it neglects the peculiarities and difficulties of individuals—then it seems to me the solution of the question is to have and keep both class instruction and individual instruction, making the class instruction the fundamental thing, animated, toned, and adapted, however, in the class teaching by the close personal mode of recitation, and then make the tutorial teaching the supplementary and reënforcing thing. Thus you will solve the problem of teaching the student in relation to his fellows and in his own self. Then we may remove from the class teaching all the little irritations and difficulties due to the peculiarities of one and another pupil, and transfer them to the proper place for treatment; for hospital treatment, if necessary.

Here it seems to me is the place where the American school education, and college education too, may receive new vitalization. That vitalization is to be gained by fostering strong individuality both in teacher and in scholar—but in the teacher first. I feel more than I can tell, that if we are suffering as a country, notwithstanding all our achievements and exertions, we are suffering from the lack of independent individual strength in men. Men are getting too subservient to public opinion; they are too willing to be run by machines, or to be a part of machinery. They are too willing to be led rather than to lead; they are too willing to take their opinions at second hand rather than at first hand. In things political and things religious, as in things educational, it does seem to be a fact (and let us be our own severe critics in this) that the American people is too much in the way of taking the "lockstep" in everything.

For the sake of our country is it not a great deal better that every boy in our schools should have the utmost provision made for him, even if it entail vast expense, so that the most sacred thing in all education, his own self, shall be invigorated, lifted, rescued, perfected, and ennobled by that personal touch in teaching? And so it all comes back to the personality of the teacher. Give me a good teacher, a good man or a good woman of noble nature, and I am comparatively indifferent to his or her scholarly attainments. The attainments will follow, like the "other things" added when the Kingdom of Heaven is sought first. Of what use, for educating our boys and girls, would it be to have the most gifted historian or linguist or physicist or teacher of any art, if that teacher is himself a small-natured, mean-natured, close-natured, little-natured soul? For educational purposes of what use is it in science, in philosophy, in anything, that men should make their discoveries, if the men who teach these things to students really amount to very little in themselves? The main effect on the student is the effect of the man.

I do not care much for the scientific conclusions or the philosophical conclusions or the literary performances of men of poor judgment or bad taste or selfish nature. I distrust them because they are the observations they have made with faulty eyes; and when the eyes are discolored by prejudice or passion or meanness, what difference does it make how great the attainments are if the man himself has not attained to being worthy of what he studies?

And so we come back to the old theme. It is the personality of the teacher that counts, not the machinery of the school. Every weak teacher leans on the machinery. Every strong teacher can get along if there is no machinery at all. What a test it is of the nobility of education when a great teacher arises, be it man or woman in the lowest or the highest grade of our education, and needs nothing but his own native power to grasp, enchain, lift and lead any student who may be brought before him. That is what makes the school; and if that is what makes the school, that is what must make our country. And as in all teaching, so in all human affairs, the personal power of the man finally determines the worth of his achievement, and the old Greek proverb remains true, that "the workman is greater than his work."

These last few days our nation has mourned in reverential sorrow one who supremely illustrates this plain, old-fashioned, indestructible truth. Grover Cleveland's whole career was filled with work, hard work, unrewarded work, intimate personal work. He did not seek great things for himself, but he did great things for us, and he was himself greater than what he did. So I ask every American boy in school to think of him as the great man who has spelled out for each of us personally the meaning of these words: wise, patient, rugged, honest, modest, loving, fearless.

Greatheart has crost the River; and as we wait here in the thick of the struggle for the things that are true and honorable, for manhood against machinery, for personal independence against servility, let us hearten ourselves by his example.

The words he said, if haply words there were,
When full of years and works he passed away,
Most naturally might, methinks, refer
To some poor, humble business of to-day.

"That humble, simple duty of the day
Perform," he bids; "ask not if small or great.
Serve in thy post; be faithful and obey.
Who serves her truly, sometimes saves the State."

THE PERSONAL POWER OF THE TEACHER IN PUBLIC-SCHOOL WORK

WILLIAM H. MAXWELL, SUPERINTENDENT OF SCHOOLS, CITY OF NEW YORK

One day not long ago in the very heart of the tenement-house region in what is known as the Lower East Side of New York, a young woman who had just left the large school of which she is principal, was slowly picking her way through the crowded street. Her progress was slow for the sidewalks were crowded with people, and the street, except a small driveway in the center, was filled with the pushcarts of peddlers. To an observer it would have been at once apparent that the young woman was a person of great consequence in that Yiddish-speaking crowd, for the children's faces were glad when they saw her, and the large boys touched their caps, and not a few of the long-bearded men standing beside the pushcarts, greeted her with, "Good afternoon, Miss K." Presently a woman of rather better appearance than the rest, stopped alongside of Miss K. and began to walk with her. With the unmistakable Yiddish accent she exclaimed, laying a respectful hand on Miss K.'s arm:

> I cannot help seeing how these children, they love you. You know my Bennie and Rosie? They're in your school. You are such a help to me at home. Some time Bennie,

he say he wont. Then he quick stop and he say: "All right, mamma. Miss K. says it is right that I should obey." Do you know, lady, when you stand on that platform in the school and you say someting it is just like when God speaks.

Whether it is because of the repression that existed in the foreign lands from which they are gathered or because of the racial sadness that seems to have been their heritage since they wept by the waters of Babylon, there is no class of people who do so much honor to the teacher, particularly if she is one not of their own race, as do the Jews.

Some twenty-five years ago a man became principal of a school in what was then one of the lowest slums of New York. It was in the days before tenement-house reform, and the abodes from which his pupils came were as a rule devoid of those necessities of life—fresh air, light, sufficient space, and sanitary arrangements. The district was crowded with saloons of the lowest class and along the river front were scores of dives frequented by sailors and those who profited by their weaknesses. It was also in the days before the law required that all teachers should be trained and that appointment should be made for merit alone. And so the school like its neighborhood was in sorry condition with a weak corps of teachers, for had not every one of them been a political appointment? The new principal, however, was not only a man of great force of character, but he had had a broad college and university training. Before the year was out he had routed the politicians and ever afterward not an appointment was made in his school except on his recommendation. How did he do it? Not by letters to the newspapers, not by denunciation of the politicians, not by lifting up his voice in lamentation over the degeneracy of the times, but by the simplest course imaginable—he so won the respect of the community that the politicians did not dare to interfere with his school, and soon they were all helping him. Instead of asking for the appointment of their sisters and their cousins and their aunts as teachers, they began to "acquire merit" by offering medals to the pupils for proficiency and by raising money to help along students who, the principal said, had the brains to study in higher institutions. He was a constant visitor in the wretched homes of his pupils. He was a familiar figure in every street and alley. Careless, negligent parents he threatened or cajoled. He found the means to clothe the child who was naked and feed the child who was hungry. He found employment after school hours for those who could continue in school in no other way. He discovered that so-called athletic clubs were hiring the larger boys in his school to pummel each other into insensibility in the presence of hundreds of brutalized men; but it took only one visit from him to each club to break it up. When with figure drawn up to its full height, tense muscles, and the stern voice of command, he invoked the terrors of the law if any pupil of his was ever entered again in a boxing bout, there was not a ruffian in the gang who was not cowed. He saw that there were children to whom books did not appeal, and for them he devised hand work. He was, I believe, the first man in the United States to introduce genuine manual training into an elementary school. His school became, as every public school ought to be, not merely a place of learning but a social center from which uplifting influences constantly radiated. Today in the humble lives of the laborer and the artisan, in the walks of business and politics, in the ranks of the lawyers, the doctors, the teachers, and the clergymen, there are thousands who attribute their success in life to the schoolmaster, Henry O'Neil.

I have cited these two cases in order to bring before your minds the peculiar conditions under which teaching in New York City must be conducted.

The first of these conditions is our vast foreign population. There are more Jews in New York than in Palestine, more Italians than in Rome, and enough foreigners of other nationalities to make a city as big as St. Louis. Of the 75,000 new pupils who enter the New York schools every year, probably two-thirds cannot speak a word of English. In one school I counted children of twenty-nine different nationalities who spoke twenty-nine different languages or dialects. To the other difficulties of school work, must, therefore, be added this, that to the majority of pupils the English language must be taught as a foreign language.

The second condition peculiar to New York is the extreme congestion of population in parts of Manhattan Island and Brooklyn. In certain large sections the population is the densest in the world rising as high as 1,000 persons to the acre. They live, on account of extremely high rents, in enormous tenement houses; as many as forty families—and the families are always large—under one roof. A low plane of living, proneness to disease, particularly tuberculosis, and the absence of domestic privacy, are the necessary consequences. From these tenements the children, often insufficiently or improperly fed, weary through lack of sleep, with their nerves on edge, come to the public schools.

The third condition, peculiar to New York is the constant shifting of population. In the tenement districts, because of the continuous migration of families a child seldom spends all of its school years in one school, generally not more than one or two years.

Of course, out of 15,000 classes there are thousands in which the ordinary conditions of school life are to be found; but in other centers, the vast foreign population, the congestion of population, and the shifting of population, create conditions of difficulty for the teacher such as are not to be found in the same degree in any other quarter of the globe.

In other words the New York City teachers are confronted with the difficulty not only of teaching an enormous mass of children—there are 600,000 pupils in the city schools—but of converting, under the most difficult conditions possible, a great horde of foreigners chiefly from the shores of the Mediterranean Sea, alien in language, alien in thought, alien in habits, into loyal American citizens. To supplement the work of the day schools the Board of Education has established several other agencies—evening schools, evening recreation centers, vacation schools, and playgrounds, lectures to workingmen and women, and organized athletic sports—all of which are doing their part vigorously and well; but it is on the regular day schools—elementary and high—our two city colleges and our training schools for teachers that the chief reliance must be placed.

The first difficulty with which we are confronted is that of teaching each year tens of thousands of foreign-born children the English language. For such children we have organized hundreds of special classes, in which English is taught by the Gouin method of teaching a foreign language. I often marvel at the quickness with which, in these special classes, our teachers manage to teach our little immigrants to speak and read and write English. In six months after landing on our docks it is no uncommon thing to find little Russians or Italians able to do all the work of the school, declaiming with tremendous fervor Patrick Henry's apostrophe to liberty or telling in their compositions about the day when their forefathers landed on Plymouth Rock. Some teachers, however, have a more wonderful gift than others in teaching foreign children English. One such teacher I have in mind. In her class children coming from homes of the most squalid surroundings, without a vestige of loveliness, surprise us with the beauty of their thought and expression. One day the principal, the Miss K. of whom I have already spoken, entered this teacher's class—a fifth-year class—and asked the children to write down any thoughts suggested by anything they had learned that day. Here is what one of them, a Russian girl, wrote: "The sky is like the ocean because on a bright summer's day the clouds in it are like white ships. It is like the land also for the clouds sometimes seem like splendid castles." Such a teacher is not merely skilful in the ordinary sense of the term. Those children who come under the spell of her enthusiasm bring back some touch of poetic radiance on their souls.

An even greater difficulty is presented by life in the tenements. Sometimes this life is one of extreme poverty; but extreme poverty, except during a period of trade suspension when men are thrown out of employment in large numbers is the exception rather than the rule. Where extreme poverty does exist, I need scarcely tell you that the teachers, out of their own slender earnings, are the first to come to the rescue.

Even when the income of the family is considerable, it is too often ignorantly and unwisely used or inordinately hoarded. The mother generally works as well as the father, and too often the children before and after school hours are left to shift for themselves. They come to school wrongly rather than insufficiently fed, though insufficient feeding is no uncommon thing at all times and especially in such a year as this when employment has been hard to find and the children of the poor have been crying bitterly. The principals and teachers have been untiring in providing relief for cases of extreme and sometimes, I am afraid, of pretended distress. But the evil is too great for individual effort to cope with. Malnutrition among the children of our large cities—the prolific cause of disease—the chief reason for lack of progress in school—the fruitful source of intemperance and crime in after years—cries aloud in the name of humanity for relief. The plain fact is that the child who is improperly fed or insufficiently fed cannot do its school work and cannot control its instinctive impulses. To relieve this great suffering, to cure this great evil, it is not necessary that boards of education should provide food without price; it is necessary only that they should provide wholesome, well-cooked food at cost price.

While we are waiting for this—perhaps the most pressing of all school reforms—the teachers are doing what they can to remedy the disease wrought by the tenement-house life—a life of crowded quarters, of bad air, bad light, and insufficient sleep. Our medical inspection, being provided by the Department of Health and in no degree under the control of the Board of Education, is quite inadequate. The principals and teachers are untiring in their efforts to induce parents to have remediable defects discovered by the examining physicians corrected; such as myopia and that most prevalent cause of disorder and so-called incorrigibility—adenoid growths in the throat. Only in about 25 per cent. of the cases, however, do the parents pay any attention to the request of the teachers. Some two years ago we had a remarkable experience which will illustrate the difficulties of this work among a crowded, ignorant, prejudiced, and highly excitable people. In a school in the Lower East Side there were collected a large number of over-age and mentally defective children. A medical examination showed that one hundred and fifty of them were suffering from adenoid growths in the throat. In the case of seventy, the parents had the necessary operation performed. In the case of eighty, the parents either refused or neglected. The principal obtained the consent of these parents to have the operations performed in school. She secured the services of one of the most famous throat specialists in the country. The operations were successfully performed. Almost instantly a rumor flew like lightning through the neighborhood that the children's throats were being cut. Frenzied mothers and fathers by the thousand besieged the school. For several days if a Health Board physician appeared in the neighborhood of a public school in the ghetto it was the signal for a mob to storm the gates of the school house. Thorough discipline withstood these attacks, just as it has preserved the children's lives in many a serious alarm of fire. The steadiness, good temper, and tact of principals and teachers bore down and calmed the frenzy of the mob. Another manifestation of the personality required of the teacher in the New York City schools.

Our courses in sewing and domestic science are doing much not only for individual pupils, but to introduce order, economy, and an American plane of living into the home. The good offices of the teachers in this respect are not confined, however, to the teachers of sewing and cooking, as the following story will show.

Mr. Y. had among his pupils a boy about thirteen years of age who was quite irregular in attendance, though a fairly good student. As the boy gave no satisfactory explanation of his irregularity, the teacher called on the boy's parents and found that they were living in two or three rooms of a miserable tenement. The father, a tailor by trade, was out of work, the mother was sick in bed, and there were four children of whom two were cripples. The rent had not been paid, and the family were on the point of being evicted from the wretched lodgings. The father, who was too proud to appeal to charity, had trudged about the city for many days in search of work, but always in vain. He kept the boy, who was the oldest of the family, home to look after the other children, and the invalid mother; besides, the boy had no proper clothing to wear, especially in inclement weather. To make a long story short, the teacher was shocked at what he saw and heard, paid the rent that was due, obtained a position for the father, and provided the boy with suitable clothing.

The boy attended school regularly thereafter, was graduated and obtained a position through the teacher. The family moved out of the neighborhood and the teacher lost all track of them.

About eleven years later, Mr. Y., who had since taken a higher position, was sitting in his office one day when a well-dressed and prosperous looking gentleman walked in and said, "Mr. Y., you do not know me? I am ———, the tailor, whom you helped in a critical period of his life. I have been trying for a long time to locate you in order to express my gratitude and to repay you, so far as I can, what I owe you." He produced a large roll of bills—some $400 or $500—which he had drawn from the bank, to present ocular proof that he was prosperous. He repaid every cent of the money advanced to him, and stated that he had a little home in another borough and that his family were in good health and circumstances. By dint of steady work and some careful investments he had accumulated what to him was quite a fortune. His boy was in business for himself and had recently married.

Mr. Y., who had long ago forgotten the episode, then realized that he had builded better than he knew, and that the teacher's influence may extend far beyond the walls of a classroom and work for good in the larger sphere of life beyond.

Another story even better illustrates the influence the tactful teacher may have in the tenement home. One day a girl, ragged, dirty, disheveled, was brought into a class taught by a bright young teacher who had already become noted for her success with foreign children. Leah, for that was the girl's name, could speak no English. She at once manifested, however, a strong liking for her teacher and, drawn by this affection, mastered the intricacies of English speech in an incredibly short time. As soon as she could make herself understood, she would lie in wait for her teacher and walk with her part of the way home. Slowly, at first, more rapidly afterward, Teacher began to drop hints as to how Leah's personal appearance might be improved. Every hint was acted on, and soon Leah began to wash her face and comb her hair, to tie and polish her shoes, and to have her clothes clean and neatly mended and held in place by hooks and eyes instead of pins. One day when they came to the door of the tenement where Leah lived, Teacher expressed a desire to make a call on Leah's mother. The sight that met her eyes was not a pleasant one. The family contained many children of whom Leah was the eldest, and there were two boarders besides, all domiciled in two rooms. Out of a confused mass of bedding, children, rickety furniture, and broken cooking utensils rose the inevitable sewing-machines out of which the family earned a living and was doubtless saving money. In subsequent afternoon walks, Teacher began to throw out suggestions as to how Leah might reform the home. Leah immediately set to work. The mother regarded Leah's doings askance, but nothing could withstand her enthusiasm, and she soon won her father's strong support. The boarders were turned out. Another room was hired. The rooms were cleansed and put in order. Even the small brothers and sisters were subjected, at first greatly to their disgust, to the scrubbing brush, and were obliged to learn how to comb their hair. About this time Teacher loaned Leah an illustrated magazine. It contained a picture of a dinner table set with silver and cut glass and garnished with flowers. By this time Leah had learned to cook in the cooking class. With the picture as her guide, a new and bolder scheme than any yet entertained, entered her little brain. There must be a dinner table with a white cloth and garnished as nearly as possible like the picture. When this triumph was complete, Leah wrote a note which her father signed inviting Teacher to dinner. Teacher accepted the invitation. What a change met her eyes. Instead of the squalor of her former visit she beheld the neatness of a poor but well-ordered home. The father and mother were a bit stiff in their reception, because they had but a few words of English, but they treated Teacher with all the reverence due to a queen. And she was a queen, for was she not to those poor Russian Jews the incarnation of American civilization?

Thousands of teachers, God bless them! are doing work of this kind in New York City. Perhaps those are doing it best who fill the school with the best spirit of our age—the spirit of social co-operation. One of my District Superintendents furnishes me with an account of a class in which this spirit is abundantly illustrated:

> Opening the door of the classroom I heard the busy hum of industry. Near the desk sat Miss X., surrounded by a group to whom she was explaining some faults of composition they had made in common. These I learned later were the backward pupils who most needed the teacher's individual help. The rest of the class were working in groups of two each—a bright and a moderate pupil. It was a most animated exercise. Every two pupils were reading and correcting a composition written by one of them. Each in turn had the double benefit of his own criticism and that of his associate. When the teacher became disengaged, a pair of eagerly throbbing hands called for judgment on some disputed point and this would at times involve a second discussion between teacher and pupils. The aim and its success in operation were equally obvious. The pupils were in the modern spirit of social co-operation, striving to find the truth. There was no copying, no suggestion of impertinent monitorial supervision. In aiding, each was learning.

When there is such a manifestation of personality in the teacher, the school is not merely a preparation for life. It is life.

And what a power a principal may be who sets teachers an example in filling the school with the spirit of social co-operation. A gifted principal writes me:

> I began my teaching career in a school entirely devoid of ideals for anything beyond the hard facts of the textbook. The contrast between this and a school where the child was looked upon as God's choicest gift, revealed to me not alone the dignity of the teacher's calling, but its tremendous responsibility.

The tenement home, it is scarcely necessary to say, breeds many bad boys. Nowhere is the teacher's personality more clearly revealed than in dealing with such boys. I asked the principal of a large school attended almost exclusively by Italians—a race prolific in unruly boys, at least in America—to write me the characteristics of the teachers who were most successful in dealing with such cases and he writes this:

> There are at least two characteristics of these teachers. These, if I read them rightly, are a rare degree of sympathy with children and an equally rare sense of justice. Not the sympathy which makes the man reason like the child, but the sympathy by which he is able to see with the child's eyes, and at the same time with his own clearer vision. Not the justice which treats all alike, but the higher justice which makes a difference.

How quickly sympathy will act was recently told me by one of my associates: An incorrigible boy on his return from the truant school to his class struck a classmate in the eye, and fled from the building. At the close of school the principal went to the home of the boy. On approaching the house the boy fled to a proper distance, but on the assurance of the principal that he did not propose to arrest him or punish him, or allow anyone else to do so, the boy led the way to his mother. The mother was exceedingly angry at the boy and urged the principal to give him a sound thrashing, saying that she herself would punish him as soon as the principal left. The principal told her that he should do nothing of the kind; that he would not allow him to be sent to the truant school again, and that if she undertook to punish him he would make trouble for her. He assured the mother that he wished the boy to return to school and promised to do everything that he could to help the boy to be a man. The principal assured the boy that if he would come to school the next day he would receive a very cordial welcome; that he would help him in every way to keep up with his class work. After a further conference in this line the boy agreed to return to school the next day. The attitude of the principal, his assurance that he would help him to be a man, proved the making of the boy.

Repression and fear are rapidly being eliminated as factors of control in the New York schools. The favorite and perhaps the most successful plan of managing a bad boy is when a teacher with sympathetic insight discovers some natural aptitude or liking, finds occupation of that nature, and builds upon the foundation thus laid. I have collected many examples of boys made over through some fitting employment or the acceptance of some responsibility which they enjoyed. Myra Kelley's monitor of the goldfish is the type.

A few days ago an unmistakable son of Italy entered my office. He held a parcel done up in paper in one hand; with the other he handed me a note. The note, which was from his principal, told me that the boy had been the worst she had ever met in a long experience—disobedient, violent, and apparently incapable of learning. This term, however, he came under the care of a teacher who discovered that Giovanni had a passion for making things. She set him to making baskets. He was no longer troublesome and was learning rapidly. The paper parcel contained a beautiful piece of basketry in vase form which showed the touch of the natural artist.

We are only beginning, I believe, to realize the influence athletics may have in reclaiming unruly boys. The great prominence given to athletics during the past few years in the New York schools has given us an opportunity to test this means of school discipline. I have no hesitation in saying that athletics rightly used not only improves the carriage, increases physical power, and develops moral energy, but is a vital force in reducing otherwise unmanageable boys to terms. This example will suffice:

J. H., a boy of fourteen, was known in school parlance as a "terror." He had passed from one teacher to another, not by way of promotion, but mainly with the hope of finding the teacher who could pick out and develop his latent ability. In the course of events he came under the guidance of Miss Blank—his last chance. He entered just before recess of the day I visited Miss Blank. At recess the boys were busy with athletics. J. H. stood by with the sneering face he usually presented for things meaning effort. Regardless of this, he was placed in the group of smaller boys for the broad jump. Possibly to show his superiority, he jumped in turn and clearly outclassed every boy in his group. The teacher encouraged this and carefully watched him and every time his work outclassed his group he was placed in the next. He was promoted thus until one day he led the group of largest boys. J. H. was very quiet for the rest of the day. In the afternoon he actually tried some of the regular class work. It had been a new experience for him to lead in anything requiring effort. He had neglected his opportunities so long that the possibility of surpassing anyone else had never entered his mind. Through this interest the teacher aroused interest in his studies and helped him after school every day. In the spring, a basket-ball team was started at his school and J. H. was elected captain by the team as an expression of their admiration of his athletics.

Only once did J. H. backslide. Then his teacher firmly took from him his honors as captain and leader in athletics for one month. He went through the usual "I don't care," of other days, but he did care, and before the term of punishment was up he was begging his teacher to shorten his banishment by extra good behavior. J. H. was promoted that term. He is now a useful member of society and in business—another living example of a teacher's unselfish work.

But boys are not the only offenders in school. It is, alas! not uncommon to meet with depravity in girls. A principal tells me this story of one of her teachers: Over two years ago there was in this teacher's class a young girl whose life was one of degradation. Her family and home were low in every respect. A visit to the family convinced this young teacher nothing could be gained there. A series of dreadful incidents occurred, foreshadowing murder and suicide. The young teacher at great risk to herself, but through this wonderful power she possesses, averted both, though the girl was expelled from the school. Not yet discouraged, Miss ——— went to those in authority and had the girl readmitted. Then the teacher induced the girl to leave her home and found employment for her with friends. She has won their respect, for they report her a very quiet, refined young woman. Though she has left her family she still contributes to their support, and is now engaged to be married to a very estimable young man.

This young teacher still keeps in touch with the girl. Her personal power is far-reaching and forcible. Her personality is very attractive, but a strong will that dominates her every act is the striking characteristic of this personal power.

Here is a story, in her own words, which a girl, regenerated through the influence of a noble teacher, has written to one of my principals:

> At the time I came under the influence of this teacher, I was an unhappy, self-willed girl, who blundered continually. I knew my faults, but I had neither the ability nor desire to correct them. Sometimes I tried to force myself to do right, but it seemed like trying to climb a soft, steep gravelly bank. I kept sinking and slipping back at every effort to go forward.
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> I recognized in this teacher a woman who was at once strong and gentle, firm and kind, noble and human, strict and sympathetic, wise and simple, powerful and controlled. Above all she was a person of high moral standards.
>
> As I became used to her type of excellence, I felt its beauty more and more, and she began to have a wonderful influence over me, which never lost its effect. She did not realize her power, she was simply living in her usual way. But I knew I had found a friend who would help me out of the misery and danger of despair.
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> My blunders brought me before her, as an almost unimpressionable case. She had given me help; I knew what to do, but I seemed powerless. I could not make myself do right. She bore with me patiently, but one day she called me to her room and talked with me. I do not remember three sentences of it now. All that I was conscious of was that I was receiving an electric treatment of personality—a noble, magnificent character was revealing itself to me. I was speechless with wonder and awakening.
>
> She had trusted me and I had done wrong and deserved severe treatment. But she chided me without temper, rashness, or personal remarks. She was beyond the reach of my wrong doing, but still she was honestly grieved by my foolish ways and disappointed at my weakness.
>
> Incorrigible as I had been, I was reached, for there was something in her gentle, firm tone and steady searching look that offered hope and courage; something in that magnetic, sympathetic personality that urged me to brace up, go forward, and conquer the past mistakes, and live according to higher standards. That woman ennobled my life.

"I still," adds the principal, "have this young woman under observation, and I know that the effect of this teacher on her life is permanent."

Marshall, in his monumental work on *Political Economy*, tells us that probably one-half of the talent and genius born into this world finds its manifestations in the lower ranks of society. If so, what a responsibility rests on the public-school teacher to discover and encourage talent! I remember how an old lady who was principal of a school in a poor neighborhood in Brooklyn often told me how she discovered budding dramatic talent in a little madcap of a girl who afterward became the bright particular star of the American stage as Ada Rehan. But why dwell on the shining examples? Let me rather relate, in the words of one of my district superintendents, the work of a man who was singularly successful in inducing boys to go on to the high school after completing the work of the elementary school.

This teacher, Mr. X., had a graduating class in a public school in one of the crowded sections of the city. Without exception his pupils were poor, and as a class, responsive and appreciative.

His assumption, as graduating-class teacher, was that no elementary school instruction was sufficient to fit a boy for modern life, however able or successful had been the men who lacked even so much. His problem was so to appeal to the understanding and emotion of his pupils that they would feel as he did and make that feeling a motive to activity in their lives. Some he influenced immediately; the restless ones who wished to "go to work" he won over before the term had closed. His power lay less in the definite reasoning and appeal he made than in the confidence he had inspired. There lay his strength and power.

But however he might influence their desires for better education, there was a more formidable obstacle. These children were poor, and poverty shrinks neither before argument nor appeal. With many of them that last year at school had been a painful story of sacrifice at home. Some of the boys knew from a more fearsome dictionary than books, the meaning of cold and hunger and neglected illness. He had kept them well together with that goal of childish triumph before them—the graduation day and the school certificate—but for the subsequent schooling he had no such incentive.

If poverty cannot be talked down it may be challenged and fought. He proposed schemes of industry to tide them over: the evening paper stand, the afternoon delivery for the corner store, the early morning route, these and other devices were tried and employed.

Then the parents too were sent for and questioned. Even among those who seemed the poorest, it is often thrift, even at times avarice, that takes the child away from opportunity. To the skeptical Mr. X. explained the value in material dividends that a year or two more of instruction might give. To the imaginative and emotional he painted the loving tribute of gratitude that would bless their old age, for one more sacrifice of effort and denial. He was not less fertile in appeal, if appeal might win, than in practical suggestion.

The result was that the great majority of his pupils bound themselves to begin a course of secondary instruction. He tells me that at graduation one boy was working from four o'clock in the morning till school time; one labored at night in a cracker bakery; another delivered parcels both before and after school, and several had their round of customers for newspapers. In such humble ground he planted seed that might some day yield the laurel.

Circumstances subsequently necessitated his transfer to another part of the city and he lost sight of his charges. Recently, however, he met two of them and shortly after others called upon him. Without exception they had done well. One is an instructor in a school of technology, three are teachers, three others are completing a course in law school, and two have already begun practice. They have kept the old class spirit together and, as the teacher informs me, recently met to arrange a reunion with a single honored guest—himself.

This man would not tolerate the arguments of those who claim that the majority of boys will be just as "successful" without as with a high-school education. To all such he made answer: "My work here is to do what I can to put these boys in the way of getting all that the skill and wisdom of the schools can yield in preparing them for the best of life. I wish to see them whole men."

There is no more useful manifestation of personal power than that of the man or woman who stimulates to the higher culture and who guides the student in the direction indicated by his natural aptitude.

Perhaps you think I have given too little attention to the purely scholastic side of our work. If so, let me sketch for you two teachers whose personal power was manifested in opposite ways. One is Miss C., a high-school teacher of history. Who that has seen her can forget her? Her dress, her voice, her speech, her gestures, her black eyes—all attractive. She held her pupils spellbound. Their attention never wandered for a second. What she willed them to do they did. She questioned them as Socrates might have done, leading them to see how ignorant they were in their first state and then how well informed they might be if they would but reason logically. She dismissed them with three topics to look up for the next day and with suggestions regarding the particular bookshelves on which helpful books might be found. The pupils would be sure to do plenty of reading and thinking in preparation for the next lesson, for they would know that Miss C.'s questioning would turn them inside out. She did not merely question. When she received a good answer she would add to it, painting in a few brief sentences a picture that would remain in the pupils' minds.

The second teacher is a teacher of psychology in a normal school. His pupils sit in a circle with him. He does not say more than a dozen sentences. The pupils seldom give him a glance. They conduct the conference themselves as any party of friends might talk together at the fireside. The subject is the will. A young woman begins to talk as soon as the bell sounds, saying that she would go on with what she and her friend had found out about the subject. At her first pause two or three are ready with questions, objections, or comments. Nearly everyone has something to say, but, as this young woman had evidently obtained permission from the class to present this particular topic she is regarded as the leader for the time being, and is consequently appealed to or challenged by the others. The teacher speaks only when it becomes necessary to say that such and such a point had been a matter of dispute for ages. When he speaks it is always with deference to the leader and the pupils give him only as much attention as they give to one another. The teacher, when asked, cannot tell me what the topic for the next lesson will be—his pupils have not informed him. They study the whole subject on psychology in this way, using no one textbook but having access to many, selecting their own topics, conducting their own oral examinations, rating themselves, calling on him only when they are "stumped." He shows his remarkable power in keeping himself from interfering, though he is really guiding all the time that the pupils seem to be acting independently.

I have tried to sketch many different types of teachers who have evidently great personal power. Who shall analyze it? Who shall determine the common elements? I shall not attempt the task. The possessor of personal power does not know what it is. He only knows that the virtue is in him. We only know that all great leaders of men have had it is a marked degree. We see its manifestations in the reactions of pupils. Thrice blessed is he who is permitted to see that these reactions are good and not evil, and that they make for "manners, virtue, freedom, power."

DEPARTMENT OF SUPERINTENDENCE

WASHINGTON MEETING, 1908

SECRETARY'S MINUTES

OFFICERS

President—FRANK B. COOPER, superintendent of schools, Seattle, Wash.
First Vice-President—STRATTON D. BROOKS, superintendent of Schools, Boston, Mass.
Second Vice-President—ELLA C. SULLIVAN, district superintendent of schools, Chicago, Ill.
Secretary—GEORGE B. COOK, superintendent of schools, Hot Springs, Ark.

FIRST DAY

MORNING SESSION.—TUESDAY, FEBRUARY 25, 1908

The Department of Superintendence of the National Education Association met in the Metropolitan Memorial M. E. Church, Washington, D. C., at 9:30 A. M., and was called to order by President Frank B. Cooper.

Prayer was offered by Bishop Cranston, of the M. E. Church.

President Cooper then introduced Hon. Joseph G. Cannon, speaker of the House of Representatives, who delivered an address of welcome on behalf of the United States government. Addresses of welcome were also given by Hon. Henry B. F. MacFarland, president of commissioners of the District of Columbia; Hon. Willet M. Hays, assistant secretary of agriculture, Washington, D. C.; and Hon. Elmer Ellsworth Brown, United States commissioner of education.

Response to these greetings was given by Dr. F. Louis Soldan, superintendent of instruction, public schools, St. Louis, Mo.

President Cooper then introduced S. L. Heeter, superintendent of schools, St. Paul, Minn., who read a paper on the topic, "In View of the Increased Demands upon the Schools, What Opportunities Are Offered for Economy in Treating the Course of Study?" The paper was discussed by F. B. Dyer, superintendent of schools, of Cincinnati, Ohio, and Frederick E. Bolton, professor of education, University of Iowa, Iowa City, Iowa.

A paper was also read by C. N. Kendall, superintendent of schools, Indianapolis, Ind., on "What Modifications in Organization Are Necessary to Secure Suitable Recognition for Pupils of Varying Ability, Particularly for the Ablest?" A general discussion followed, led by John A. Long, superintendent of schools, Joliet, Ill., and W. H. Elson, superintendent of schools, Cleveland, Ohio.

President Cooper appointed the following committees:

COMMITTEE ON NOMINATIONS

L. D. Harvey, superintendent of Stout Training Schools, Menomonie, Wis., *chairman.*
H. H. Seerley, president of State Normal School, Cedar Falls, Iowa.
W. H. Bartholomew, principal of Girls' High School, Louisville, Ky.
Miss S. Belle Chamberlain, state superintendent of public instruction, Boise, Idaho.
Henry Snyder, superintendent of public schools, Jersey City, N. J.

COMMITTEE ON RESOLUTIONS

F. Louis Soldan, superintendent of instruction, public schools, St. Louis, Mo., *chairman.*
N. C. Schaeffer, state superintendent of public instruction, Harrisburg, Pa.
Lawton B. Evans, superintendent of public schools, Augusta, Ga.
R. E. Denfeld, superintendent of city schools, Duluth, Minn.
Lewis H. Jones, president of State Normal College, Ypsilanti, Mich.

The department then adjourned to 2:00 P. M.

AFTERNOON SESSION

The afternoon session was called to order at 2:00 o'clock by President Cooper.

The program for the afternoon consisted of a symposium entitled "The Place of Industries in Public Education." This symposium had been organized and the speakers secured by Jesse D. Burks, principal of Teachers Training School, Albany, N. Y.

The following propositions were introduced for discussion:

1. The ideals of a democracy require a system of public education that shall provide equal educational opportunity for all. Discussion by James E. Russell, dean of Teachers College, Columbia University, New York City.

2. Equality of opportunity can be secured only by proper recognition of (*a*) individual differences in native capacities and in social environment, (*b*) the requirements of vocational efficiency as well as of (*c*) general intelligence and executive power. Discussion by Edward C. Elliott, professor of education, University of Wisconsin, Madison, Wis.

3. The most urgent need of our educational system is an adequate provision for the vocational needs of children destined for industrial and domestic pursuit. Discussion by James F. McElroy, president, Consolidated Car Heating Company, Albany, N. Y.; Benjamin R. Andrews, secretary of departments of domestic economy, Teachers College, Columbia University, New York, N. Y.; W. E. Roberts, supervisor of manual training, public schools, Cleveland, Ohio, and Howard D. Brundage, Stout Manual Training Schools, Menomonie, Wis.

4. A comprehensive program of industrial education requires:

a) Constructive activities as an essential and important factor in the elementary school course. Discussion by Miss Euphrosyne Langley, School of Education, The University of Chicago; Frank M. Leavitt, assistant director of drawing and manual training, Public Latin School, Boston, Mass.

b) Intermediate industrial schools, admitting children at the sixth school year and equipping them for specific industrial pursuits. Discussion by Charles H. Morse, secretary of Massachusetts Commission on Industrial Education, Boston, Mass.

c) Technical high schools for the training of industrial leaders. Discussion by Geo. H. Martin, secretary of Massachusetts State Board of Education, Boston, Mass.

EVENING SESSION

The evening session of the department was called to order by President Cooper at 8:15 o'clock. The following announcement was made by Roland P. Falkner, secretary of the National Civic Federation, New York City:

Mr. President, Ladies and Gentlemen:

Your Committee has kindly given me two or three minutes in which to outline briefly the plan and purpose of the National Civic Federation to send next winter certain teachers of the United States to England and continental countries for the purpose of inspecting schools of elementary and secondary grades, industrial schools, manual-training schools, and schools for the training of teachers. The scope of the undertaking is indicated by the schools to be visited and the teachers to be selected would naturally be those who in this country are engaged in the same work. The scope of the undertaking is, as you see, practically identical with the universally recognized field of public-school education. The teachers who are selected for this tour of inspection will enjoy the benefit of greatly reduced rates in the steamships of the National Mercantile Marine Company. Recognizing the benefits which would accrue to the teachers of the country and desiring to promote as far as possible the friendly feeling between the two countries, this company has generously offered to these teachers passage to and from Europe at a rate which is about one-fourth of the regular rate. The teachers to be selected will go, not as a body, but a certain contingent in each ship. On arriving in England they will find that Mr. Alfred Moseley, well known to all American educators for his philanthropy and for his public spirit in organizing the Moseley Educational Commission, and later in organizing the trip of the English teachers to the United States, will have entire charge of the arrangements for the reception of the teachers. They will be met on arrival by committees; schedules will be made up of the schools which can be visited with most profit by the different types of teachers interested in corresponding types of education, and all arrangements will be made by these committees to insure to the visiting teachers a cordial reception. The advantages of such a trip to England—and some few can also go to the Continent—are so obvious that they have met with the cordial approval of all to whom this project has been broached; and a considerable number of prominent educators have expressed their approval of this plan and have consented to serve upon an advisory committee. I hesitate to tell you who they are, because some of them have told me that they did not want to have any correspondence in regard to the matter; that they want all the correspondence to be conducted by the New York office.

The interest of the National Civic Federation and its desire to promote the public welfare is evidenced by their taking hold of this matter. This organization, moreover, as an organization, is profoundly interested in all the problems of industrial education and believes that these problems of industrial education cannot be solved except in connection with the general problems of the public school; and it is desirous that all information that can be obtained thru a visit to foreign countries to see what they are doing along similar lines should be obtained and spread among our people.

In the selection of the teachers who are going to make this trip, of course, our desire is to make as wise a selection as possible. It is not a pleasure trip. It ought not to be so regarded. We feel that it should be looked upon as an opportunity for professional advancement; and it is desired to make the wisest possible selection of the teachers who will profit by such a trip; and to this end the National Civic Federation asks the co-operation of the educators here present. We hope that the teachers to be selected will be predominantly those who are chosen by the superintendents of schools, and by the principals of industrial and normal schools, and who are duly nominated for that purpose by the board of education, or other corresponding educational authority. It is perfectly clear that the nomination should come to us; it is our desire that it should come to us by those bodies who are by law in a position to grant to the teachers leave of absence for this period, and preferably leave of absence with pay. As this is, and should be, an opportunity for professional advancement, we solicit your co-operation that the matter be considered by the educational authorities as a matter of professional advancement, so that the teachers who participate in the trip can do so without sacrificing, or without forfeiting, their regular compensation. We believe that a trip of this kind can be made of great value, not only to the teachers who participate in it, not only to the teachers of the United States as a whole, but that it should be beneficial locally.

We believe that in every community there are certain specific problems to be worked out, and that those in the direction of educational affairs would be helped by sending to foreign countries representative teachers selected by them, with the distinct purpose of investigating those particular things which constitute their own home problems.

This, briefly, is the plan and scheme of the National Civic Federation in this matter. On your return to your homes you will find awaiting you invitations to take part in it. You will find, with these invitations, circulars descriptive of all conditions in regard to the visit. These circulars have been printed, and so far as opportunity is given me after this session and during the meeting, I will be very glad indeed to give them to those who may be interested and to answer any questions that I can in regard to this matter.

We hope that this project, undertaken for the benefit of the teachers of the United States, will receive the sympathy and support of the educators here present, and that thru that co-operation the National Civic Federation and those who are associated with it may be permitted to make their contribution to the advancement of education in the United States.

The address of the evening was delivered by Hon. Willet M. Hays, assistant secretary of agriculture, Washington, D. C., and his address was illustrated by a variety of stereopticon views. A general discussion followed, by E. T. Fairchild, state superintendent of public instruction, Topeka, Kan.; Lorenzo D. Harvey, superintendent of Stout Training Schools, Menomonie, Wis.; and A. C. Nelson, state superintendent of public instruction, Salt Lake City, Utah.

SECOND DAY

MORNING SESSION.—Wednesday, February 27, 1908

The morning session of the department was called to order at 9:30 o'clock by President F. B. Cooper. The following program was presented:

Topic: The Nurture and Protection of the Physical Well-Being of Public-School Pupils

1. How Can the School Make Contribution of Permanent Value to Physical Development?—Luther Halsey Gulick, director of physical training, public schools, New York City.
2. The Mission of the Play-Ground.—W. M. Davidson, superintendent of schools, Omaha, Neb.; General Discussion led by A. H. Yoder, superintendent of schools, Tacoma, Wash.

3. Medical Inspection in Public Schools as Contributing to Health and Efficiency.—Thomas F. Harrington, director of physical training and athletics, public schools, Boston, Mass. General Discussion was led by E. C. Moore, superintendent of schools, Los Angeles, Cal.; Miss Sadie American, executive secretary of Council of Jewish Women, New York City.

BUSINESS SESSION

President Cooper, at the opening of the business session, called for the report of the Committee on Nominations, which was made by the chairman, L. D. Harvey, superintendent of Stout Training Schools, Menomonie, Wis., nominating the following as officers for the ensuing year:

President—W. H. Elson, superintendent of schools, Cleveland, Ohio.

First Vice-President—David B. Johnson, president of Winthrop Normal and Industrial College, Rock Hill, S. C.

Second Vice-President—Ida C. Bender, supervisor of primary grades, city schools, Buffalo, N. Y.

Secretary—A. C. Nelson, state superintendent of public instruction, Salt Lake City, Utah.

On motion, the report of the committee was accepted and unanimously adopted, and the nominees declared elected.

The question of the place of meeting for the year 1909 was then taken up. Invitations were received from Oklahoma City, Okla.; Rochester, N. Y.; Albuquerque, N. Mex.; and Chicago, Ill. After the presentation of brief arguments in favor of each city as a place of meeting a formal ballot was taken, which resulted as follows:

Oklahoma City	105	votes
Rochester	87	"
Chicago	44	"
Albuquerque	10	"
Total	246	"

Oklahoma City was therefore declared the choice of the department as the place of meeting in 1909.

Señor Ezequiel Chavez, under-secretary of the Department of Public Instruction of the Republic of Mexico, was then introduced by President Cooper, and extended greetings to the Department from the Republic of Mexico.

GREETINGS FROM THE REPUBLIC OF MEXICO

Yesterday evening I had the honor of presenting the greetings of the Department of Public Instruction and Fine Arts of the Republic of Mexico to the Department of Superintendence of the N. E. A., at which time I expressed the earnest wish felt by the department that in the plans which prepare for the future formation of the coming generations of Mexico and the United States, there should figure not only the ideas, but also feelings of good-will and cordiality which would realize to a great degree the co-ordination of efforts of both countries in the working-out of the progress of the whole American Continent.

I now beg to say that for the purpose of drawing the already existing ties of affection and mutual consideration closer and closer, the Department of Public Instruction of my country has commissioned me to come to state to the Department of Superintendence that the Department of Public Instruction would be highly pleased if the Department of Superintendence of the National Education Association of the United States should hold its annual meeting of the year 1910 in the City of Mexico, and there attend the meetings of the chief educational authorities of Mexico, or, failing this, that a commission of representative superintendents be selected to go to Mexico in the said year.

The occasion will be dignified and memorable: at that time the completion of the first century of the independence of Mexico will be celebrated. Mexico has proved in the course of the century of her life that she has made good use of her emancipation. At the cost of heroic wars, she won for herself the complete separation of church and state, as far back as nearly fifty years ago. Isolated from all nations, except Spain, in the long period of Spanish rule, she now has relations with *all* the nations of the world. She is proud of her long and bitter struggles which have served to bring, with the price of her blood, her independence and her political rights. The satisfaction afforded to us by a visit of such a delegation will be very great, and more so as it is the intention to form at the same date a national university, the plans for which she has already adopted. She will gladly share that satisfaction with a select group of men such as form this Department of Superintendents, whose work she considers of supreme importance in the organization of the people of this continent.

Next year when the department meets an official communication from the Department of Public Instruction and Fine Arts of the Republic of Mexico will remind you of the invitation which I now share the honor of tendering, so that it can then be acted upon, whether the whole Department of Superintendence hold its session of 1910 in the City of Mexico, or whether only a delegation be appointed.

In one way or another, my presence here, the announcement that I here make that next year the said communication will come, and the acceptance thereof, whether in the full form as we hope, or in the limited one, will permit, I earnestly hope, the very near realization of a great Pan-American Conference of Education, and will bind anew the ties of friendship and good-will of all citizens of this great American continent.

Secretary George B. Cook then reported the following resignations from the Committee on a Universal System of Key Notation, viz.: F. Louis Soldan, of Missouri, and Aaron Gove, of Colorado. To fill these vacancies, President F. B. Cooper appointed President H. H. Seerley, of Cedar Falls, Iowa, and Superintendent W. H. Maxwell, of New York City.

There being no further business, the department, on motion, adjourned.

AFTERNOON SESSION

One of the most interesting events in the history of the Association occurred at 2:30 P. M. In accordance with a previous invitation, President Roosevelt received the members of the department and a few invited guests, numbering in all about 1,500, in the East Room of the White House, and delivered an address, a report of which will be found among the papers of the department.

The remainder of the afternoon was devoted to various meetings of societies holding sessions in connection with the department convention.

A session of special interest to the Association was the meeting held in the parlor of the New Willard Hotel at 4:30 P. M. for the organization of the new Educational Department of National Organizations of Women, authorized by the Board of Directors of the N. E. A. at their meeting in Los Angeles, Cal., July 12, 1907.

MINUTES OF THE MEETING FOR ORGANIZATION OF THE EDUCATIONAL DEPARTMENT OF NATIONAL ORGANIZATIONS OF WOMEN

The meeting was held in the sitting-room of the New Willard Hotel, February 28, 1908, at 4:00 P. M. Dr. E. Oram Lyte, of Millersville, Pa., called the meeting to order in accordance with the custom that the one who presented to the Board of Directors the petition for the organization of a new department should preside at the meeting for its organization.

On the motion of Miss Laura D. Gill, Miss Lillian W. Johnson, acting president of the Southern Association of College Women, was elected secretary pro tem.

The chairman read from the *Proceedings* of the National Education Association for 1907–8 Article VI of the By-Laws entitled "Departments" (see pp. 7–8 of the Los Angeles volume). He then asked the Secretary to read from the *Proceedings* of the New Board of Directors for 1907–8 (see pp. 51–52 of *Yearbook*, 1907–8) the petition for the organization of the new department and the minutes of the action of the Board of Directors approving the same.

The chairman announced that the first order of business was the nomination of officers of the new department. The following ticket was presented by the secretary:

For *President*—Miss Laura Drake Gill, of the Association of Collegiate Alumnae.
For *Vice-President*—Mrs. Frederic Schoff, of the National Congress of Mothers.
For *Secretary*—Mrs. Philip N. Moore, of the National Federation of Women's Clubs.

The secretary was instructed to cast the ballot of the members present for the nominees. The ballot was so cast and the officers declared duly elected for the term to expire with the Cleveland meeting in July, 1908.

Dr. Lyte then introduced Miss Laura D. Gill as president of the Department and resigned the chair to her. As Mrs. Moore was not present Miss Johnson continued to act as secretary.

President Gill stated that the first business to come before the new department was the selection of a name for the department, and that it would be necessary to appoint a committee to present the name to the Board of Directors of the N. E. A. On motion of Dr. Lyte it was voted to refer the selection of a name to the officers of the department.

Before the motion to adjourn, President Gill explained that membership in the department just organized could be held only by those who were members of the N. E. A., and that membership in one department entitled a member to vote in any and all departments of the N. E. A. After the motion to adjourn was passed, many of those present remained, and there was an informal discussion of the future plans of the department. President Gill outlined the program of the department for the Cleveland meeting.

Among those present at the meeting were:

Miss Laura D. Gill, president of the Association of Collegiate Alumnae.

Mrs. Frederic Schoff, president of the National Congress of Mothers.

Miss Lillian W. Johnson, acting president of the Southern Association of College Women.

Mrs. Hugo Rosenberg, president of the National Council of Jewish Women.

Miss Sadie American, secretary of the National Council of Jewish Women.

Mrs. J. N. Phillips, editor of official organ of Alabama Federation of Women's Clubs.

Miss Louise Connolly, superintendent of schools, Summit, N. J.

Miss Elizabeth V. Brown, director of primary instruction, public schools, Washington, D. C.

Miss Anna E. Logan, primary supervisor, Ohio State Normal College, Miami University, Oxford, Ohio.

Miss Mina B. Colburn, superintendent of Cincinnati Kindergarten Training School.

Miss Gertrude Edmund, principal of training school, Lowell, Mass.

Miss Elizabeth A. Hayden, teacher in public schools, Washington, D. C.

Mrs. Mary R. Gale Davis, Bridgeport, Conn.

(Signed) Lillian Wyckoff Johnson, *Secretary pro tem.*

EVENING SESSION

The evening session of the department was called to order at 8:15 o'clock. An address was delivered by Hon. Andrew S. Draper, state commissioner of education for New York, on the subject, "Desirable Uniformity and Diversity in American Education."

THIRD DAY

MORNING SESSION.—Thursday, February 27, 1908

The morning was devoted to various round table conferences, as follows:

(A) ROUND TABLE, STATE AND COUNTY SUPERINTENDENTS

Leader, J. B. Aswell, state superintendent of public education, Baton Rouge, La.; secretary, J. J. Doyne, state superintendent of Public Instruction for Arkansas.

Topic: County Supervision

1. What Should a Good County Superintendent Know?—J. W. Olsen, state superintendent of public instruction for Minnesota. Discussion by W. S. Sutton, professor of education, University of Texas.

2. How Can Trained County Superintendents Be Provided, and How Should They Be Selected?—F. A. Cotton, state superintendent of public instruction for Indiana. Discussion by J. M. Guinn, Department of Education, Tulane University, New Orleans, La., and others.

3. When Inspecting a School What Should a County Superintendent See and Do?—G. G. Joynes, county superintendent of schools, Onancock, Va.

4. What Can the County Superintendent Lead the People to Do?—Lawton B. Evans, superintendent of schools, Augusta, Ga.

5. By Whom Should Teachers Be Selected?—F. G. Blair, state superintendent of public instruction for Illinois.

6. The Relation of the County Superintendent to the County Board.—A. C. Nelson, state superintendent of public instruction for Utah.

7. The Relation of the County Superintendent to the State Superintendent.—W. W. Stetson, Auburn, Maine.

8. The Relation of the State Superintendent to the County Superintendent.—J. Y. Joyner, state superintendent of public instruction for North Carolina. Discussion by State Superintendent C. P. Cary of Wisconsin; and others.

(B) ROUND TABLE OF SUPERINTENDENTS OF LARGER CITIES

Leader, Ben Blewett, assistant superintendent of instruction, public schools, St. Louis, Mo.; secretary, Charles E. Chadsey, superintendent of schools, Denver, Colo.

Two brief papers were presented by J. M. Greenwood, superintendent of schools, Kansas City, Mo., and George S. Davis, associate superintendent of schools, New York City. The remainder of the time was given to general discussion.

Topic—Teachers: Supply, Normal Training, Placing, Subsequent Training

The following superintendents joined in the discussion: C. N. Kendall, Indianapolis, Ind.; Walter H. Small, Providence, R. I.; I. C. McNeill, Memphis, Tenn.; Addison B. Poland, Newark, N. J.; J. A. Shawan, Columbus, O.; W. C. Martindale, Detroit, Mich.; W. H. Elson, Cleveland, O.; C. F. Carroll, Rochester, N. Y.; J. A. Whiteford, St. Joseph, Mo.; Stratton D. Brooks, Boston, Mass.; Henry P. Emerson, Buffalo, N. Y.; Asst. Supt. Henry S. West, Baltimore, Md.; Carroll G. Pearse, Milwaukee, Wis.; William H. Maxwell, New York City, and President John W. Cook, State Normal School, De Kalb, Ill.

(C) ROUND TABLE OF SUPERINTENDENTS OF MEDIUM AND SMALLER CITIES

Leader, J. H. Phillips, superintendent of schools, Birmingham, Ala.; secretary, G. G. Bond.

Topics

1. To What Extent Should State Uniformity Laws Apply to Cities in Respect to Courses of Study, Textbooks and Methods in: (*a*) Elementary Schools; (*b*) High Schools? John W. Carr, superintendent of schools, Dayton, Ohio; Carleton B. Gibson, superintendent of schools, Columbus, Ga.; followed by Superintendents R. K. Buehrle, Lancaster, Pa.; J. N. Study, Ft. Wayne, Ind.; John N. Davis, Stevens Point, Wis.; E. G. Lantman, Port Chester, N. Y.; Principal Edward Conradi, St. Petersburg, Fla.; C. A. Prosser, New Albany, Ind.; W. E. Striplin, Gadsden, Ala.; Vernon Davey, East Orange, N. J.

2. Principles and Methods in Pupil Government, Wilson L. Gill, Germantown, Pa.; Oliver P. Cornman, district superintendent of schools, Philadelphia, Pa. Discussion was continued by Superintendent Winfred H. Babbitt, Hawaii; E. C. Willard, Stanford, Conn.; and J. H. Phillips, Birmingham, Ala.

(D) ROUND TABLE ON AGRICULTURAL EDUCATION

Session in the Metropolitan Memorial M. E. Church

Leader, Ernest E. Balcomb, Department of Agriculture, State Normal School, Weatherford, Okla.; E. C. Bishop, State Department of Education, Lincoln, Neb.

Topic: Preparation of Teachers for Agricultural Education.

1. The Necessity of Preparing Teachers—A. C. True, director of experiment stations, Department of Agriculture, Washington, D. C.

2. Some Notes on the Training of Teachers—Elmer Ellsworth Brown, U. S. commissioner of education, Washington, D. C.

3. Plans of the Youngest State—E. D. Cameron, state superintendent of public instruction, Guthrie, Okla.

4. The Training of Teachers.

a) By State Normal Schools—John R. Kirk, president of State Normal School, Kirksville, Mo.

b) Co-operation of State Agricultural Colleges and State Normal Schools—Kenyon L. Butterfield, president of Agricultural College, Amherst, Mass.; Alfred Bayliss, president State Normal School, Macomb, Ill. Discussion by Wm. M. Stewart, president, State Normal School, Salt Lake City, Utah.

5. Co-operation between the United States Department of Agriculture and State School Authorities to Promote Agricultural Education—Dick J. Crosby, specialist in agricultural education, Department of Agriculture, Washington, D. C. Discussion by E. C. Bishop, deputy state superintendent of public instruction, Lincoln Neb.; George B. Cook, superintendent of schools, Hot Springs, Ark.

At the close of the program, Superintendent Carrington, of Missouri, moved that the meeting proceed with the organization of the Department of Rural and Agricultural Education. Motion seconded and carried.

Dick J. Crosby moved that we proceed to the election of a president, vice-president, and secretary. Motion seconded and carried.

The following officers were nominated and unanimously elected:

For *President*—E. C. Bishop, deputy state superintendent of public instruction, Lincoln, Nebraska.

For *Vice-President*—D. B. Johnson, President Winthrop Normal and Industrial College, Rock Hill, S. C.

For *Secretary*—E. E. Balcomb, Department of Agriculture, Southwestern State Normal School, Weatherford, Oklahoma.

AFTERNOON SESSION

The department met for its final session at 2:00 P. M., and was called to order by President Cooper. The following was the program of the session:

Topic: The School as an Instrument of Character Building

1. The Function of the School in Training for Right Conduct—Miss Margaret E. Schallenberger, State Normal School, San José, Cal.

2. The School and the Development of the Social Conscience—Mrs. John M. Glenn, Baltimore, Md.

3. An Experiment in Moral Training—Miss Jane Brownlee, Educational Lecturer, New York City. General discussion was led by Reed B. Teitrick, deputy state superintendent of public instruction, Harrisburg, Pa.; and Henry G. Williams, dean of State Normal College, Ohio University, Athens, Ohio.

At the close of the session the Committee on Resolutions made the following report, which was unanimously adopted.

REPORT OF COMMITTEE ON RESOLUTIONS

Resolved, That the Department of Superintendence recognizes the growing importance and increasing necessity for industrial education. It advocates the close adjustment of school studies to the demands of life. The fitting of the child for a life of industry in shop, farm, or home ranks next in importance to the building of character, the cultivation of intelligence, and, subordinate and contributive to these, the training of the hand, which are the chief aims of education.

The Department of Superintendence believes in the great value of the study of agricultural subjects in the schools of the rural districts.

The Department of Superintendence favors the granting of federal aid to the state normal schools for the training of teachers in the subjects of agriculture, manual training, and home economics.

The department believes that in the large cities provision should be made, by the opening of special ungraded rooms, for the instruction of children of emigrants unable to speak English. Grown children of this class should not be placed in the primary grades with little pupils, but, where feasible, receive special instruction in English, so they may be placed after a short time with children of their own age.

Special provision should be made in every large city where the proper conditions exist for the maintenance of evening schools to instruct adult emigrants in the English language and the duties of citizenship.

The Department of Superintendence is of the opinion that in every large city schools should be maintained for the special care of children who are neglected by nature.

The Department of Superintendence is gratified to receive the information that the National Civic Federation in conjunction with Alfred Mosely have completed plans for visits of American teachers to the schools of Great Britain and the European continent during the coming autumn. The department believes the cause of education will be helped and advanced by the comparative study of the school systems of various countries by competent observers.

The Department of Superintendence respectfully submits for consideration of Congress the fact that the provisions made for the National Department of Education are not commensurate with its importance and the vital national interests which it represents. More liberal financial means are required to carry on properly its work for the study of educational progress and the dissemination of educational information.

State legislatures and school administrators are dependent in every step they take for the improvement of the schools on the information gathered and published by the department and on the advice of its educational experts.

The salary fixed for the office of commissioner of education should be more in keeping with the dignity and importance of the office, and should not require constant self-sacrifice on the part of eminent men that have held that position. The salary paid by the nation to its commissioner of education should not be less than that paid by the large cities to the chief educational officer.

Committee
F. Louis Soldan, *Chairman*
Nathan C. Schaeffer
Lawton B. Evans
Robert E. Denfeld
Lewis H. Jones

The following resolution was offered by A. S. Downing of New York, and, after discussion, was passed.

Resolved: That the executive committee of the Department of Superintendence, consisting of the President of the Department and Secretary of the N. E. A., be authorized to ascertain whether the hotel accommodations at Oklahoma City are adequate for the entertainment of the Department of Superintendence; and if they shall find that such hotel accommodations are not adequate, that they designate some other city that has ample hotel accommodations as the place for holding the next meeting of said Department.

THURSDAY EVENING

Thru the courtesy of the trustees of the Corcoran Gallery of Art, the Board of Education of Washington, D. C., tendered to the members of the Department and invited friends a reception at the Corcoran Gallery of Art from 8:30 to 10:30 p. m. Thru the courtesy of the Assistant Secretary of the Navy, the United States Marine Band supplied the music for the occasion.

Respectfully submitted,
George B. Cook, *Secretary*

PAPERS AND DISCUSSIONS

IN VIEW OF THE INCREASED DEMANDS UPON THE SCHOOLS WHAT OPPORTUNITIES ARE OFFERED FOR ECONOMY IN TREATING THE COURSE OF STUDY?

S. L. HEETER, SUPERINTENDENT OF SCHOOLS, ST. PAUL, MINNESOTA

The saving of time and energy—the opportunity for economy in the work of public education—must be sought, first of all, in an economy of aim looking toward education for efficiency in our industrial society. Economy in treating the course of study, economy in the selection, adaptation, and presentation of subject-matter presupposes an economy of aim.

We are proud and justly so of what we are prone to believe to be the finest public-school system in the world, a system which has developed marvelously along pretty definite literary, scientific, and professional lines; but there is a growing feeling that the historic curriculum is unbalanced and one-sided, that we have built up a system of schools whose academic courses best meet the needs of the minority. In the stress of rapidly changing social and industrial conditions, we have offered the means of knowledge to the millions, but our schools have not yet risen to their responsibility as instruments of the state in the development of popular efficiency. They have developed on the democratic theory that all children are equal and that we must offer equal opportunity to all, but we are now forced to see that all children are not equal, and what may be a valuable opportunity to one may be no opportunity whatever to another. Reports from all parts of the country indicate that the majority of boys and girls come to a point in our elementary schools where they fail to find genuine opportunity; they fall short in intellectual processes, arrive at a state of arrested development even inside the schools, drop out at fourteen or as soon as they can evade the law, and enter, once for all, low-grade industrial pursuits, and lives of social, moral, and financial uncertainty.

Here is the condition, directly facing us in all our work, which must be reckoned with in our efforts to save time and energy—to economize in education. It is not my purpose to lay the blame on the short-sightedness of childhood, nor on the blindness of parents, nor on the selfishness of employers of low-grade child-labor, nor on the indifference of the public, but to inquire into our school aims and into our school curriculum for elements which seem to permit, possibly encourage, the condition pointed out.

At first thought it would seem that school authorities have the only part to play in the solution of this problem, and the remedy should be sought in a strict enforcement of compulsory education laws. This has been the first move everywhere, but I desire to emphasize the fact that the rational development of an educational system that counts for popular efficiency will not culminate in a condition under which attendance must be forced by external authority, but in a condition which in itself possesses compelling power sufficient to hold boys and girls longer in training. Such compelling power must come from within, more than from without, and it can be secured not so much thru compulsory measures, as thru a reasonable adaptation of the training offered by the schools to the concrete needs of society.

It is gratifying to follow the successful movements that have brought real opportunity to the negro and the Indian; to our own mentally, morally, and physically defective, and especially to our juvenile delinquents and youthful criminals; and yet our extended system of popular education will reach its fullest development not in schools of discipline, ungraded rooms, parental schools, and detention homes, not in any special schools, but in the continued evolution of a democratic aim in education to the extent that nothing shall be negligible in the investigation of the individual needs of all children in our industrial society, and nothing negligible in adapting our educational aim, materials, and methods to their needs in view of special aptitudes, varying capacities, and prospective careers.

Here is the problem, whose solution is as new as our twentieth-century city and our present form of industrial life. The school has taken over most of the responsibility for education which it formerly shared with the home, the farm, and the forest. The school has taken over most of the responsibility of preparing the rank and file for the society in which they are to live, but as yet we have not discovered how to supply the important elements in education that in other days were provided thru activities outside of the school. There is a chasm between our educational system and our modern industrial life. On the one hand, discouraged boys and girls, abnormals, dullards, truants, and delinquents find themselves unable—mentally, socially, and physically unable—to continue with credit in our culture programs. On the other hand, science, invention, and specialization continue to withdraw them from the old-time chores, the light jobs and occupations, from the fireside, farm, and workshop, and transplant them behind the closed doors of our factories. The schools so isolate themselves from the industrial world, and receive so little inspiration from the industrial age in which we live, that thousands of boys and girls leave the elementary schools year after year with only the rudiments of book-learning, to find themselves helpless in the whirl of our industrial society, and drift about from one low-grade pursuit to another, or swell the crowd of improvident juvenile tramps.

And so we are forced, absolutely forced, to a reorganization of our educational aims, having in mind the interests of the majority. We dare not boast of a system of universal education as long as our free schools are maintained to support the professions to the neglect of the vocations; as long as our high schools are dominated by the idea of books and preparation for college, and as long as our elementary schools are controlled by the idea of the making of a worthy life without giving the capacity to make a worthy living. The point is, there is still a lingering mediaevalism in our school aims taking as its ideal a worn-out conception of culture. The making of a cultured life was a sufficient aim in the days of academic seclusion, in the days of Greece with its dominant slave-owning oligarchy; but we are called upon today to train American boys and girls in an industrial democracy, and if we are in earnest about universal education, we must abandon all one-sided aims and ideals and recognize that our educational system succeeds just to the extent that we make it focus upon the individual needs of each member of society.

My conclusion thus far is that the very spirit of the day is demanding of educators truth and directness in all their aims. The very first economy in education must be an economy of aim. A system of public education that aims to provide equal opportunity for all, should be so organized, equipped, and directed as to offer some genuine opportunity to the majority—opportunity to secure such knowledge and training during school life as will enable each individual to make the most of himself and render the largest service to society. All education today must aim at efficiency. The very first element in a successful life, and the very first service of an individual to society, are the disposition, the determination, and the ability to make a living. I sincerely believe that we are at the beginning of a great development of primary industrial education in this country thru the channels of popular education.

And now, as to the course of study itself, the materials with which we work. Economy of subject-matter must follow an economy of aim. There must be no inconsistency in any argument for economy of time and energy which would at the same time increase the demands upon the schools. The elementary program has been referred to as a heterogeneous mixture, a kind of stew, a hodge-podge of many ingredients. We hear a constant cry against the multiplicity of subjects that have found their way into the schools. Yet here is not where we break down. Let us be careful. The problem of the course of study, the solution of which leads to economy of time and energy, is not a problem of closing our eyes and eliminating certain subjects bodily from the curriculum. The activities and studies that make up our program from the kindergarten thru the high schools, the games and plays, the arts and crafts, the industries and occupations, the elementary sciences, drawing and music, the laboratories, gymnasiums, school gardens, and shops, these are not mere accidents. They are abiding realities arising with the conscious needs of our complex social and industrial organizations. The problem before the school is not that of a wholesale elimination, not a problem of getting rid of this subject or that, but one of interpreting and proving relative values of materials, activities, and studies in the light of the new aim in education.

It is no longer a problem of enrichment of the course of study, once considered the panacea for all the ills of the schools, but one of arriving at essentials and fixing upon fundamentals and potentials in every subject taught. The old school was burdened by its own limitations and so narrow was the conception of its teachers that every lesson began and ended in drill on isolated facts. The reaction came none too soon, bringing about an enrichment that reduced brute memorizing, broke away from lifeless matter, opened up to the teacher broad fields of material; and yet after two decades of such enrichment, our curriculum has become so extensive, so comprehensive, so far-reaching in its scope and significance, that its outlines fairly bewilder, if not overwhelm, our very best-trained teachers. The time has come when school authorities should call a halt on enrichment and realize that content of study has been sufficiently outlined.

I cannot help feeling that too many children are dropping out of our elementary and secondary schools dazed and bewildered from a superficial treatment of elaborate academic courses. On the one hand our teachers have absolutely no time to stop for the sake of thoroness; on the other, they simply refuse to leave details alone. If a boy finds himself forced to be a wage-earner and wishes to increase his earning capacity, he should receive in four years at high school such a grounding in practical arithmetic, plain English, and typewriting as to be able to go out into our offices and put out of business the lads who spend eight weeks in our business college. I wonder if we are crowding back upon high-school boys and girls pure mathematics, institutional history, and abstractions in science beyond the experience and comprehension of childish minds? I am sure there are still too many science courses between the lids of the books, not enough applied physics and chemistry. Too many laboratories, instead of being an interesting workshop for boys, are given up to abstract discussions of scientific laws. A child has no business working in historic geology and running about nights playing at astronomical observations before he has an everyday practical acquaintance with physical, commercial, and industrial geography. Our free elective system should not lose sight of prerequisites. So far as the high school is concerned a certain amount of arithmetic should come along with higher algebra; spelling before or at least along with dramas and novels; a legible handwriting before design in color; typewriting before stenography; home geography before astronomy; physiology, hygiene, and domestic economy before zoölogy, and so on.

And now what are my recommendations? It is easy enough to generalize, but what are the concrete possibilities?

First: Let us get together on such simplification of academic subject-matter in the first six grades of our elementary schools as will afford a practical basic training to every child—a broad basis of general culture and efficiency for every boy however humble the home, and however circumscribed the course of his destiny. It may mean in arithmetic the elimination of complex fractions, metric systems, Troy and apothecary's weights, compound proportion, mensuration of trapezoids, trapeziums, cones, spheres, and pyramids, until all pupils have mastered the multiplication tables and become accurate in fundamental operations. It may mean in grammar the abolition of all guesswork in parsing and of fine discriminations in sentence analysis, until all children, even in our poorer districts, are given a sure grounding in practical language training. In writing, it may mean less wrangling over the uniform slant of letters and more consideration for the development of an individual, intelligible hand on the part of each child. In drawing, it may mean nothing more than the cultivation of such artistic sense as will help boys and girls to wash their hands, comb their hair, clean their nails, and put their desks in order. Some things in all subjects are surely fundamental. It remains for us to agree upon these.

Second: We must introduce into the daily program of the first six grades, including the kindergarten, a comprehensive system of primary industrial training whose varied and graduated activities may be pressed, daily instead of once a week, to the very highest point of interest and usefulness, but never to drudgery, routine, or arrested development, thus stimulating and encouraging rather than neglecting and distorting the very impulses, the instincts of construction and production that lie at the basis of success for the individual as well as for our industrial society.

Third: As to our seventh and eighth grades—we are called upon to reorganize our educational aim as well as our courses of study in these two upper grades upon the basis of vocation as well as mental achievement. We must socialize and industrialize our so-called *grammar* schools, must give a richer civic content to all studies and activities by the emphasis of such arithmetic, handwriting, and spelling as will meet the requirements of business; by drawing less artistic, less decorative, and more mechanical; by more practical language training and less formal grammar; by more attention to the commercial and industrial aspects of geography, to the civic and institutional side of history, and by more frequent observation and by closer study of the leading industrial materials and processes of the community.

Fourth: We must decrease the school hours, so far as formal studies in the grammar schools are concerned, for certain boys and girls forced by circumstances to go early to work, but increase the time correspondingly for such pupils to be given to industrial training and commercial subjects to the extent of utilizing a larger variety of suitable materials and processes from the various leading industries of the community, ending possibly in a closely articulated elementary system of apprenticeship between the grammar schools and leading industrial enterprises.

Fifth: In addition to night schools for the laboring classes maintained strictly for all over sixteen years of age, there should be set aside in every city a certain number of rooms for half-day continuation schools, some in the morning from eight o'clock until twelve, and some in the afternoon from one o'clock until five, for boys and girls between the ages of fourteen and sixteen forced by necessity to go to work, such schools to be under men teachers, the board of education in every case to maintain a labor bureau to whom every employer of child labor must apply and by whom every certificate must be issued.

Sixth: The saving of time and energy in public education will be encouraged by the abolition of the old-time, classical high school as such, and by the introduction of general manual-training and commercial courses into all high schools; by the establishment of city high schools on the district plan, pushing them out to the people and increasing the number as attendance will warrant, thus making the high school less a school for the privileged classes and more and more a part of our common-school system.

Seventh and last: The scheme for popular education for all-round efficiency will be complete in the establishment of at least one secondary industrial school in every city, which shall afford, in addition to its general courses, the opportunity to specialize in mechanic arts, home economics, and commercial subjects, offering two-, three-, and four-year courses; such schools to be supported locally with additional encouragement as soon as possible in the way of organization and maintenance from the state and federal government, leaving the establishment of special trade schools for adults aiming solely at narrow, specialized skill, to private endowment or even to the state, but entirely beyond the system of free, public education. All educators, superintendents of schools, and boards of education interested in general efficiency in our industrial society may safely encourage the establishment of independent trade schools turning out productive economic units and preparing for jobs, but we should take the stand that all independent apprenticeship systems and special trade schools should keep hands off of our boys and girls under sixteen years of age, and the entire responsibility for education of children looking toward general efficiency should be thrown upon our system of public education.

DISCUSSION

F. B. DYER, superintendent of schools, Cincinnati, O.—In the foregoing thoughtful paper there is one point to which I shall offer a mild dissent. I refer to early industrial efficiency on the part of our pupils. Carlyle said his father was not simply a shoemaker, he was a man who made shoes. Efficiency is a blanket term, for efficiency in a democracy is a complex matter. While it includes vocational fitness, it includes much more. To be confidential, it seems to me that this term "efficiency," the slogan of recent educationists, has been sadly overworked of late. It has lost its special virtue, its *divinum quiddam*, its Socratic daemon, so to speak, and should be decently shelved in the museum of pedagogical cant. At least, can we not take it for granted as we do the gentlemanly virtues? I know it would leave many of us for a time without much to say, but this would give us an opportunity to think, and would reduce the volume of our educational proceedings to readable proportions. This is meant not as a protest against anything that has preceded, but as a protection in what is to follow.

I have observed the occupations of people that live near the route from my residence to my office. There are three candidates for the presidency of the United States, two congressmen—politics is something of a profession in Ohio—physicians, brokers, manufacturers, plumbers, tailors, all of them representatives of at least 128 honest trades, professions, or businesses, as distinct as those I have enumerated. Yet these people have so much in common, in spite of the bewildering variety of ways they have of making a living, that the neighborhood seems to be fairly homogeneous.

Because of the diversified industries and vocations in American cities, the problem of vocational training is peculiarly difficult. It is a very different problem in cities of Europe where industries are specialized along one or two lines, and where children usually follow the calling of their parents.

The superstructure of vocation, however varied, seems to need much the same sort of solid foundation of character, intelligence, and knowledge of civic duty and natural law. It seems to me possible to find mental food that is good and wholesome for all normal children at least to the age of 14.

But the discussion this afternoon will bring out whether it is wise to begin the differentiation of children at so early an age as 12, and to fix their bent at the dawn of adolescence; the topic of this morning evidently was planned to consider whether by good management we can make room for many things we are not doing, without the loss of anything of importance which we are doing.

I believe we can. I shall not discuss the possible reorganization of our materials so that all manual work shall be the expressional side of other school activities. If this is brought about at all, it must be by painful evolution after many experiments and failures. I hope that many will try it, so that we may profit by their experience.

METHODS OF SAVING TIME

We can save at least one-fifth of our time (1) by the elimination of obsolete or worthless matter, (2) by due regard for the laws of physical and psychical development in the assignment of time for subjects and the arrangement of material, and (3) by more expert presentation and consideration of the material in the classroom.

When the three R's constituted the curriculum, it was necessary to expand them mightily to occupy the child for eight years. There is no reason now why they should remain dropsical. We can tap arithmetic, geography, and grammar, and reduce their bulk one-half without irreparable loss to this world or the next.

As to assignment of time for different subjects, it has been pretty conclusively demonstrated that an excess of time given to such subjects as spelling, penmanship, and formal language exercises, so far from benefiting children in those subjects, leads to dissipation of attention, decrease of effort, and poor results. In drill exercises of all sorts, the shortening of the time increases the intensity of application, and therefore the rapidity and accuracy. A daily five-minute drill on mathematical processes, and a half-hour for study of problems adapted to the experience of the child will probably accomplish more in the end than an hour a day even of the same character of work.

The selection of topics may be made with an eye single to the requirements of our civilization, but the ordering of this material must be with an eye single to the laws of growth. We must begin with the things the need of which the child can feel and see, and must arrange the matter so that as the child's interest and experience expand, that topic which is nearest will be considered next.

But I wish to address myself particularly to the third method: *Economy in the schoolroom, in the presentation of the material.* We superintendents are so busy inventing tables, pigeon-holing statistics, ordaining courses of study, and handing down misfit syllabuses (mostly second hand) that we have no time to spend in the classroom, assisting to eliminate the waste there. This is a pity—not that some of us could render much assistance there, but because it would enable us to attack the problem of economy in teaching with a better understanding of the conditions.

The Schoolmasters' Club of my city has been giving this year to a study of the extent and the causes of the waste of time and energy in the schools. I shall not tell you the extent, for if I did, someone might go home and brag how much better he does things. But I shall enumerate some of the causes, for after a visit to several cities I believe these are not altogether local. I shall confine myself to—

CAUSES OF WASTE IN THE SCHOOLROOM

1. Insufficient attention to the formation of habits—especially habits of study and self-help, but also habits of order and cleanliness, of promptness, of consideration for others,

of honor, and trustworthiness. The teacher should see that the mental attitude is in the direction of right ideals, and then should stimulate the child to fix these tendencies into habits, by continual exercise in the school activities. This should be the controlling motive in the discipline, and to this end the intelligent co-operation of the home should be sought. Herein, according to our critics, our American schools fall short.

2. Lack of preparation in advance of the matter to be presented and illustrative materials to be used, resulting in random firing, all along the line. Departmental teaching is a partial remedy in grammar grades.

3. Lack of perspective in the use of details to bring out the essential ideas, with the result that essentials and nonessentials are hammered on with equal fervor. This arises from a mistaken notion of thoroness and from an indiscriminating use of the memory in excessive drills and upon ill-digested facts on the one hand, and in failure to emphasize forms and concepts that are necessary to progress on the other.

4. Not a clear enough distinction between that part of schoolroom management which should become routine, and the occasional part which requires deliberation and decision. Unnecessary time is devoted to distributing and collecting materials, preparing forms, giving orders and countermanding them, getting ready for recesses, and getting down to business afterward.

5. Unstimulating teaching that does not arouse the children to joyous activity. I do not refer to weak personalities, for whom there is little hope, but to trained teachers with a full stock of devices and best ways of doing things. Artificiality and insincerity will accompany skill, unless the teacher keep her sympathies and interest very much alive.

6. Unsupervised and excessive written work. Writing is likely to be the chief means of expression and occupation in mass teaching. Tests are convenient devices to keep a class quiet when the teacher wants a rest period.

7. Infrequent reclassification and inflexible systems of promotion, classes so large as to prevent attention to the individual at the moment of his need, the presence of defective children with normal children. These overtax the teacher without commensurate results.

8. Inattention to the physical condition of the schoolroom, and to the physical condition of the pupils. Expert medical assistance in the schoolroom is indispensable, not only to determine physical conditions, but to advise concerning the needs of abnormal children.

That the loss of time and energy is very considerable in many schools is evidenced by the following estimates, which I believe are not exaggerated: In our large cities 50 per cent. of the pupils are one year or more behind the normal age of their grade, and 20 per cent. are two years or more behind their grade. More than one-half our pupils do not get farther than the sixth grade, perpetuating an illiterate proletariat in our cities, tho by law all are kept in schools until they are fourteen, and by expert estimate only about 5 per cent. are too defective mentally and physically to do the work.

I do not charge that this is due wholly to waste in the schoolroom, but I believe that conditions can be brought about that will economize the time in the schoolroom to better advantage.

Among the means of securing better conditions, I can discuss only one.

The principal or head-master as the important factor.—Instead of frittering away time about the office, more than half of his energy should be given to supervising in the literal sense of looking over, not overlooking, children at their work.

1. It is for him to discriminate between children of different capacity, and advance each with appropriate rapidity (acknowledgments to Dr. Eliot), to see that the lazy are stimulated, the dull are awakened, the bright are employed, the indifferent are interested, the unruly are regulated, the failures are investigated, the absentees are brought to book.

2. It is for him to arouse the home to a full appreciation of its responsibility in the training of the children, to secure the intelligent co-operation of parents and teachers, and to ally with himself the social agencies of his community for civic betterment.

3. It is for him to see that the school plant is kept in good physical condition, with regard to temperature, ventilation, cleanliness, and repair, to see that the teaching apparatus is on hand and in good condition when wanted, and to see that it is wanted.

4. It is for him, with the assistance of such helpers as we can give him, in the classroom and thru teachers' meetings, to improve the method of instruction and of discipline,

to see that the emphasis is placed upon the essentials (and this includes the essential habits and ideals of the children, as well as the fundamentals of the various branches of study), to keep the sympathies and interest of the teachers keyed to the proper tension, and to bring the whole school up to the standard of the best teachers in it.

In short, some may propose one method, and some another, to eliminate the waste in the schoolroom due to mass teaching, but in any system an intelligent principal is the key to the solution. It is for us to see that he rises to his responsibilities and that he has the assistance which he needs to perform his duties.

FREDERICK E. BOLTON, professor of education, State University of Iowa, Iowa City, Ia.—I have not had the privilege of seeing Superintendent Heeter's paper and, consequently, shall be obliged to make an extemporaneous discussion. I am warned by the preceding speaker that the word efficiency is to be tabooed. However, the first point which I wish to make is that while we are considering the arrangement of a course of study so as to secure efficiency for pupils, we must not forget the most important factor—efficient teachers. Undoubtedly the pupil's time is wasted far more because of inefficient teachers than because of any ill arrangement of subjects and topics. The textbooks suggest fairly good logical arrangement of subject-matter. We need teachers with breadth of scholarship sufficient to discern the varying worth of the different topics and who know how to vitalize the whole range of subject-matter. To substantiate my view that our children suffer from inefficient teachers, I may say that in one great state there is one teacher in every fourth high school who has had no training, academic or professional, beyond that received in that high school. Little wonder that we complain of waste and dissipation of energy somewhere. It could not be otherwise. We need great and efficient teachers more than modification of the course of study. When we have a teaching profession with every elementary teacher a graduate of some normal school, and every high-school teacher with the equivalent of a college course and requisite professional training we shall cease to bewail the arrangement of the course of study. We must look to Germany for an object-lesson.

I fully agree with Superintendent Heeter that many details and topics must be omitted from the course. He has elaborated that so well that I need not enter upon it. Dr. Mc Murry gave a splendid discussion of this topic also in 1904.

We must also reorganize and redistribute the various subjects and topics in the course. We must rearrange the material of the course in such a way as to adjust the various subjects and topics to the needs and capacities of the pupils at varying stages in their development. Under our present system this is impossible. In a general way the spiral plan would far better meet the needs of the pupils. Germany has long recognized this and acted accordingly. There each subject is introduced early and continued for a long period of years. Many subjects are given a small number of hours per week. By this method the pupils consider the subject at different times, from different angles, and with different interests. In this country, although the spiral plan has been adopted in name in some places, to my knowledge it has never been arranged on a scientific basis. Not a single book that I know of really observes the spiral plan as known in Germany. The Germans secure better results than we do and in a shorter time. I have investigated with considerable care the amount of time devoted to the teaching of German in Germany. It is a noticeable fact that they do not have several subjects like spelling, reading, composition, rhetoric, grammar, etc. They have one single subject—*Deutsch*. In this country we have a great variety of subjects relating to English. We devote to all of them about twice as much time as the Germans give to *Deutsch*, and, I believe, with poorer results. Why could we not correlate all of these subjects around one center? Why do we need special classes for composition, spelling, rhetoric, etc.? Why could not practically all of the composition themes be secured from the work in history, literature, science, and geography? This would result in a great saving of time and greater efficiency.

In harmony with my first position I desire to state that the course of study must be considered in such a way as to recognize better individual needs and individual conditions of development. We have too long considered the course of study from the purely logical point of view. We have arranged our subjects and topics in harmony with cold logic and have failed to recognize the psychological and sociological aspects of the case. We must regard the question from a new point of view. The aim of education is being conceived entirely anew. We no longer regard it as a mere question of formal discipline. We wish to adjust and adapt the individual to social needs. We must come to regard the child as the center and circumference of all pedagogical considerations. We have too long substituted for this the subject of instruction.

WHAT MODIFICATIONS IN ORGANIZATION ARE NECESSARY TO SECURE SUITABLE RECOGNITION FOR PUPILS OF VARYING ABILITY, PARTICULARLY FOR THE ABLEST?

CALVIN N. KENDALL, SUPERINTENDENT OF SCHOOLS, INDIANAPOLIS, IND.

In the twenty minutes allotted me, I shall confine myself to a discussion of the modifications required in organization to promote the interests of the ablest children. So-called defective pupils are therefore left out of account. Backward children are more easily disposed of. Schools for defectives are increasing in number, and there is something like a settled mode of procedure in dealing with such children. They make a more effective appeal for consideration than the ablest children do. Incidentally, the removal of defective children from regular classes enables a teacher to devote her energies to children of normal power. Such separation, therefore, promotes the interest of *all* children.

It is probably true that pupils in a given room are as unlike in their mental capabilities as in their looks. Forty children, forty characters. Says President Eliot: "To discriminate between pupils of different capacity, to select the competent for suitable instruction, and to advance each pupil with appropriate rapidity, will ultimately become the most important function of the public-school administrator."

Of course I cannot attempt to show satisfactorily to you, and certainly not to myself, how this discrimination, this selection, and this advancement can be made, for so long as the work of teaching and administering schools is done by mere men and women, so long will we fall short of the ideal pointed out by President Eliot. I am convinced, however, that substantial progress is being made in many cities and towns to conserve the interests of pupils of varying degrees of ability.

A mere mention of special features of differing classification plans, which of late have come to my notice, would exceed the limits of this paper. If superintendents and principals have not wholly succeeded in breaking up the so-called "lock-step," it is not because of indifference or lack of effort. In my opinion the "lock-step" theory has been somewhat overworked, but the use of the figure has served to call attention to the *individual* as distinct from the system of which he is a part. The lessening of the rigors of grading was inevitable, as practical, modern psychology caused children to be better understood.

In the preparation of this paper, I made an effort to learn what unusual or out-of-the-way plans of promotion and classification are in operation in important centers of the country. The usual response I received was like this one:

> We have a rather elastic system of promotion. The regular rule is semi-annual promotion, but bright children are in some cases allowed to skip a half-year's work. A grade is usually divided into divisions so that a part of it goes faster than the other. An unusually bright pupil in such a division would not really lose a half-year by skipping.

It would be no exaggeration to say that this seems to be the normal or general plan of classification. At any rate, the variations are slight.

From a few places, however, some special or unusual plan was reported. In Cambridge, the course of study in the grammar schools is six years, but the pupils are so classified and the course of study so arranged as to afford the able pupils an opportunity to complete it in four years. In fifteen years, of the nine thousand pupils who have gone thru the grammar schools of that city, 7 per cent. have made the course in four years, and 25 per cent. in five years. Those who are not familiar with the plan can, if they so desire, learn the details from the Cambridge school report.

It has been in operation fifteen years. I have been unable to find elsewhere such carefully prepared tables, showing the actual numerical results of a particular scheme of promotion for pupils of varying degrees of ability. The schools of Cambridge are known as good schools. There is in my possession testimony, independent of the superintendent's office, of the merits of this scheme.

For these reasons I have spoken of it. It may be no better than numerous other special plans; it may be no better than the common practice of semi-annual promotions with frequent individual promotions.

It is interesting to note that the average age of pupils who enter the high schools in Cambridge is substantially fourteen-and-a-half years. In two other typical Massachusetts cities, Springfield and Worcester, where there are also nine grades, the average age of pupils entering the high schools is reported as practically the same as that in Cambridge; that is, the Cambridge plan, good as it is, does not bring about such rapidity of promotion as to effect in any considerable degree, in comparison with other cities, the age at which pupils enter the high schools. To repeat, it is chiefly significant because its results for a considerable period of years have been reduced to figures.

Another consideration remains to be mentioned. In each large Cambridge grammar school is a special teacher, whose business it is to aid, by personal instruction, both the able and the backward. It is almost unnecessary to add that such additional teachers, giving individual instruction, are desirable in every large grammar school. It is, however, no practical solution of the problem of either the ablest or the backward, for as we approach anything like real individual instruction, we have greatly increased expenses for schools.

I believe, therefore, that existing plans of promotion and classification, if properly administered by discriminating and capable principals, take care of the ablest children to a larger extent than is generally thought.

Semi-annual promotions; two sections in each grammar school, three or more in primary schools; abolishing examinations as a test for promotion; individual promotion of pupils, and increased interest in the individual pupil apart from the mass, all contribute to this result.

Thus far all relates to the child in relation to the conventional course of study; but arranging promotions so that the child may pass thru the schools in the shortest period of time is not, of course, a solution of what shall be done for the ablest pupils; for them, the course of study needs at some points eliminations, at other points additions, and sometimes generous additions. A capable pupil may also be an immature pupil; to rush him on to the high school of the prevailing type is to be deplored.

I wish now to speak of a plan for caring for the ablest children in the last two years of the grammar-school course. It is by no means novel or original, but is in operation in several cities.

It is this: to group the most capable children of the last two years in certain buildings as centers, as defectives are grouped in centers. In growing cities there is of course difficulty in finding rooms for these centers in already overcrowded buildings. This difficulty, however, would be likely to disappear when we are convinced that as much should be done for gifted children as for slow ones, and when we are further convinced that in the schools of a democracy, every child, the able as well as the dull, has this claim upon us—to give him the best of which he is capable. In a large departmental school a class of the able children can sometimes be placed in separate divisions in the standard subjects.

These children should be placed with a strong teacher, for some of the ablest pupils will not make use of their power unless the teaching is effective. It is my conviction that any marked departure from the usual course of study or order of things is likely to fail unless the teacher or administrator is forceful and intelligent. I refer to the teacher of backward children, to the teacher of the ablest children, to the teacher of Latin in the grades, and to numerous other special teachers. The personal equation is the main thing. The paper administrative scheme is subordinate. Therefore, to place the keenest and most capable children in charge of the college or normal-school graduate of slender personal or teaching resources is to invite failure. The work for such children would not be the conventional course of study, for they are the alert and the capable.

If from well-to-do homes, it is probable that many of these pupils will go to college. Latin or German may be begun, literature may be increased in content, history and geography may be combined, the scope of mathematics may be increased, the use of English may be broadened and strengthened. These pupils will go to the high schools prepared to enter the second half-year, or they will reach the high school a half-year or a year ahead of pupils of normal power. There need be little fear of their ability to maintain themselves in the high schools. There is numerous testimony bearing upon this point. In Cambridge the four-year grammar-school pupils lead their classes in the high schools, and have done so for years.

Another center might be established for pupils who probably will not go beyond the high school, or perhaps to the high school at all. In this center Latin would be omitted, literature and geography would be enriched, the various art activities, including manual training, increased, science taught and arithmetic emphasized. However, it is not my purpose to formulate a course of study for these pupils; local conditions would determine. What these ablest pupils work *at* is important, but is of secondary consideration; the main thing is to have them work at the safe and sane maximum of their power.

This term we have established in Indianapolis two centers for unusually strong pupils beginning the second-half of the seventh year. In these centers pupils are gathered from eight schools. There are twenty-five pupils in each class; they work in departmental schools.

In Baltimore there are four preparatory class centers, as they are called there, for seventh- and eighth-year pupils who have made creditable records in the sixth year. These pupils carry on the regular work of the seventh and eighth years, and, in addition advanced English work, Latin, and either French or German. Three extra study credits may be earned, which count toward a high-school diploma. Superintendent Van Sickle states that a pupil who is working successfully in these preparatory classes completes the high-school course in three years. In Worcester there is a similar plan for concentrating in a few centers pupils of ability who are preparing for the high schools.

In Indianapolis, apart from the two special classes mentioned, at the beginning of the eighth year certain strong pupils begin Latin, whose parents request it. These pupils earn a half-year's credit to be applied in the high schools. All our pupils in the eighth year have an opportunity to earn high-school credits in English and mathematics. About one-third of the pupils earn these credits and subsequently do good work in the high schools. Other pupils, and frequently the same pupils as those I have mentioned, earn credits in German. The aggregate result is, that about one-third of the ablest eighth-grade pupils enter the second half-year of the high school.

The most, perhaps, that can be claimed for these and similar plans is that they are an attempt to differentiate pupils of ability in the higher grammar schools, independent of ordinary schemes of grading.

Certain considerations should be mentioned: First, the number of the ablest pupils, as the term is used in this paper, is small; at least it so appears in the light of our present knowledge of children. Such is the judgment, too, of discriminating principals and teachers. Second, we must rely upon teachers and principals to point out such pupils. The tendency would be to choose too limited a number rather than too many. It is a responsibility the burden of which becomes less with experience. Then, there is the natural reluctance to part with strong pupils and lose the help of their leadership. This reluctance is made deeper by the feeling that the gifted pupils are needed to help the less gifted. Third, as I have said before, the immaturity of pupils cannot be left out of account, apart from their special power to do the technical work of the course of study. For immature pupils broader experience, breadth and depth of study, are as important as rapidity of progress thru the paper course of study. There are some things which pupils must grow to, as Dr. Hinsdale used to say.

This leads to a fourth consideration, the consent of parents for pupils to have rapid promotion and to work in special classes. Strange as it may seem to us, parents sometimes know better than schoolmasters what is best for their children.

Some of the most intelligent parents are entirely willing that their children, even tho precocious, should pass thru the grammar schools with slight demands upon their real working power, if the general school atmosphere is good. Here is a girl nine years old in the sixth grade. She is the daughter of a judge, the mother is a woman of education and refinement. The girl will make from 90 to 100 per cent. in any reasonable test in the various standard school subjects. The parents know these facts. She has no peculiarities except brains. They are unwilling to have her go ahead as she really has the power to do, considering only the conventional paper course of study. They believe that she will gain much from the general school life, for it is a good school. The attitude of these parents is typical.

To satisfy intelligent parents is something, but not everything. If this child and others like her were in a special school where they could be taught independently of the ordinary course of things, their school life would be really worth while. As it is, there must be more or less regrettable dawdling. Both intelligent parents and school superintendents, in considering this phase of the question, might well take to heart Gladstone's words to a graduating class:

> Believe me when I tell you that the thrift of time will repay you in after life with an usury of profit beyond your most sanguine dreams, and that the waste of it will make you dwindle alike in intellectual and moral stature, beneath your darkest reckonings.

The consent of parents is essential, if additional demands are to be made which tax the strength of a child, and if he is to go an unusual distance to school. There should be frequent conferences between the principal and teachers on the one hand, and parents on the other, with reference to the health of these children.

Fifth, additional expense in teaching classes with expert teachers. This expense may be justified, however, in the same way that we justify the per capita expense for high schools and for state university instruction—the necessity of training leaders in a democracy. In Oakland, California, where, by the way, there is an excellent promotion scheme, pupils who cannot be well classified in one building may be transported at public expense to another.

Sixth, in Indianapolis, if I may refer again to a situation with which I am familiar, the high-school credit system for the eighth grade has resulted in a closer articulation between the high school and the grammar school. The heads of departments in the high schools have become interested in the work of the grammar schools; they visit the grammar schools, they give class instruction in academic subjects to grammar-school teachers; they attend and take part in teachers' meetings: they have a better understanding of grammar-school conditions, and have, consequently, a more sympathetic attitude toward grammar-school work. The change from the grammar to the high school is perhaps made easier. I believe I can see signs of better teaching in the high schools resulting from all this. When high-school teachers turn their faces toward the grammar school, as well as toward the college, high-school instruction will be more effective. There will be more teaching and less lecturing; more of a disposition to take the pupil where he is; less of a disposition to find fault with grammar-school instruction; and a greater realization that the pupil in the first year or two of the high school is still a child.

It seems to me that signs are not wanting that the time is near when there will be modifications of the work of the seventh and eighth years of the grammar-school course:

In organization—centers in which strong pupils can work at the maximum of their power, unhindered by less capable pupils. In curriculum—training and instruction which shall take a larger account of the differing needs of pupils, some vitally related to *vocational* life, for there is good authority for saying that "Incompetency in the arts is quite as dangerous to society as illiteracy." Neither the grammar school nor the high school can completely dispose of this menace, but they can do something. To do so effectively, however, requires teachers in the arts, of special skill and power, and consequently more expensive teachers.

There is one paragraph from a lecture of Huxley's which seems to make a fitting close to this address:

> Now the most important object of all educational schemes is to catch these exceptional people, and turn them to account for the good of society. No man can say where they will crop up; like their opposites, the fools and knaves, they appear sometimes in the palace and sometimes in the hovel; but the great thing to be aimed at, I was almost about to say the most important end of all social arrangements, is to keep these glorious sports of Nature from being either corrupted by luxury or starved by poverty, and to put them into the position in which they can do the work for which they are specially fitted.

DISCUSSION

JOHN A. LONG, superintendent of schools, Joliet, Ill.—Most of our attempts to adjust the school organization to children of varying ability, so far as I am aware, have taken the form of breaking the school period up into smaller units which have no special psychological significance, and has only drawn us farther away from our actual pedagogical problem. My experience is that half-year promotions may be, and often are, quite as rigid as annual promotions. The unfortunate tendency has been to increase the emphasis upon subject-matter as the source of our pedagogical standards, instead of throwing it over upon the attitudes and capacities of the child as he confronts a new situation.

I wish to call attention to two things from Mr. Kendall's paper. First, the incident of the judge who was unwilling to have his precocious daughter go far beyond her grade because he felt that there was something to be gained by "waiting," that there was something to be got out of time. Now, let us put alongside of that the saying of Dr. Hinsdale, that there are some things children need to grow up to. Both these things seem to me to point to the fact that there are, in the lives of children, certain nodal points of experience or attitude, ways of looking at things, which are outside of, and separate from, the mere ability to add to knowledge, to gather experience, or to follow the "paper course of study." In other words, there are times when children change their method of handling the subject-matter which they can get from the course. These are the things which they must grow up to, must get by time, and they cannot be given any other way. If we are to look to these nodal points, we must make our flexibility, our elasticity within these periods. We must never ask a child to assume an attitude toward the world which he does not have. In my judgment, we shall, in the end, be compelled to find our greater freedom by enlarging our sphere of opportunity and activity.

This general line of thought leads us to an inquiry into the changing attitudes and capacity of the child as he advances in years along the school period. Does he change his attitude toward the world every year, or does he change it at all? Is every year a new one, or are some of them only continuations of others? According to Dr. Dewey, there are two points of decided change within the years generally covered by the public schools—one takes place when the child is seven and one-half or eight years of age, or in the latter part of the second grade; the other is what is known as pubescence, and takes place, with girls, usually about the beginning of the seventh grade. Why not make these psychological changes the large breaks in your organization? This divides the whole time into three great periods, each with its definite characteristics.

The first period comprises the first two years in school, and is marked by what Dr. Dewey calls direct sense experiencing. The child is interested in those things which take up his direct sense activity and add to his stock of imagery on that basis. He is accumulating imagery and is constantly asking the question, What? What is it? What can it do? He wants to learn to read, and write, and use numbers simply as an activity, with little idea of using these things for some remote purpose. These two years constitute one period, and should be presided over by one teacher, not two. This gives us a criterion for the selection of that teacher. She should be one who has naturally much the same attitude toward the world as the children have. She must be able to see the world as they see it if she is to assist them.

The second period extends, usually, from about the beginning of the third grade to the beginning of the seventh and is characterized by an interest in the organization of imagery on the basis of the adaptation of means (mostly physical) to projected ends The child has learned to hold his purposes, to project them into the future, and to organize or adapt his activities so as to reach them. It is the period of technique when the child is interested in *how* a thing is done. Here, again, the attitude of the child gives you the criterion not only for the selection of the teacher, but for the selection of subject-matter as well. The teacher should stay with the pupil more than one year, and should be able to see the world as he sees it. The technique phases of the different subjects should here be taken up: industrial history, industrial geography, the technical side of reading, writing, spelling, the organization of the arithmetical processes, the development of the various elements of the English sentence, the use of literature as an aid in the projection of ideas and ideals in life. All this gives both the superintendent and the teacher something to fall back upon, some standard and guiding principle for their work, so that they do not need to confine themselves to a narrow path dosed out each month from an office somewhere. They both become free because they know the law of the thing they are dealing with.

The third period is ushered in by the coming of adolescence, or pubescence, and is characterized by a desire to organize the activities and images on a social basis. The child now becomes dimly conscious of his relations to the race and to society about him. His desires have outrun his muscular co-ordinations and he struggles to adapt himself to this new relation. Things are now seen in their larger and more scientific systems. Here again, we have the criterion for our selection of subject-matter. The social side of geography is commercial, of history is institutional, of literature is that which deals with the relations of members of society one to another, of science are those larger general truths which form the background for the organization of all the sciences.

Some such larger and more psychological organization as is indicated above will make it possible to meet the various intellectual needs of the pupils and still keep them free from the possibility of arrest by asking them to assume an attitude toward the world which they have not yet reached.

W. H. Elson, superintendent of schools, Cleveland, Ohio.—We have gone a great way in the solution of this problem when we have the problem stated, as we have had so well done in the paper this morning. We have also had a good statement of the attempts that are making thruout the country in the most progressive schools for a modification of school organization in such a way as to adapt instruction to the needs of these varying groups of children, and in the moment that I am occupying your time I shall review only one or two of these points.

We have first the mention of the method approached by the selection or separation of defective children. That is a splendid step, negatively, in providing for the brightest children. Something is doing in the grouping or segregation, or separation, of the backward children, which I thoroly believe in as one of the ways of solving this problem. Doubtless with both these groups provided for we have yet the problem of adapting the instruction, modifying the work that is presented to these children, best to meet their needs and requirements. Mr. Kendall has suggested a plan for the separation of children that are going to the high school.

We have before us another possibility and another problem that will come up this afternoon for discussion, which resolves itself into two or three possible things about which none of us knows very much, perhaps, and about which we want to proceed somewhat slowly and yet to move forward; that is, Whether or not our schools shall attempt further groupings? With, we will say, the segregation of the defectives and the segregation of the backward children, we shall have perhaps 90 per cent. of the children left — reasonably capable children, able to work fairly well together. Some of these children are going to the high school and some of them are going to college; most of them are going to work. Perhaps we all agree that in the grade instruction of these children there is needed a larger element of industrial work. Probably we would all agree with that, and perhaps also to some clipping and limiting of the course and to a better adaptation of academic subjects to the real needs of the children. We know the waste is great beginning with the fifth or sixth grade; whether or not these children are all to have more industrial work, with perhaps a modified and better adapted academic work; or whether we are to segregate some of these children and give them vocational instruction; or again whether we are to segregate children that are going to the high school and, perhaps, to college—these are questions that local conditions must determine. Those of us who have the problem of the foreign child and the foreign district know that in our own schools the widest possible range of adaptation is needed. Here is the one school which is distinctly foreign; difficulties of language are there, narrow and limited experience. The home life is to be taken into account. Those children need a modification of the course of study—very much modified from the group of children that are predominantly American; children that come from homes where there are books, opportunities for travel, and the widest possible experience. We know that in this one type of school the waste is very great.

I said to the principal of a school the other day: "How many first-grade schools have you?" He said: "I have ten." "How many fourth-grade schools have you?" He said: "I have five." "How many fifth-grade schools have you?" He said: "I have three." "How many eighth-grade schools have you?" He replied: "I have one." Merely one showing in a school of forty teachers, or forty schools, a tremendous waste. That school offers a problem in itself.

In another school that I visited a few days ago, I found two and one-half second grades in the school. I found two eighth grades—an American school in a fairly comfortable community. I went to the office and looked up the records and found that this school had in it fifty children, only, out of one thousand, that are at all behind their grade; that is, behind their normal year's standing.

Now, these two schools present distinct types and the problem is entirely different as to how we are going to meet this modification. I do not know that any one knows; but it is sufficient to say that something is needed in the way of grouping and modification. Perhaps the suggestion that Mr. Kendall made for the segregation of children that are going to high school is well adapted to some conditions, perhaps to some cities, and certainly to some schools in certain cities.

Then we have this other problem as to where industrial work is needed. In some cases, to learn how to earn a living is a matter of much greater significance to the children than some other things. Here a peculiar type of instruction is certainly needed. I would suggest with reference to the industrial phase of it, particularly to the vocational phase of it, that we need to go slowly, particularly in that part of it which relates to the direct work of the elementary school.

SYMPOSIUM: THE PLACE OF INDUSTRIES IN PUBLIC EDUCATION

I. *DEMOCRACY AND EDUCATION; EQUAL OPPORTUNITY FOR ALL*

JAMES E. RUSSELL, DEAN OF TEACHERS COLLEGE, COLUMBIA UNIVERSITY

It is a commonplace of political history that our government is the resultant of contending forces in our national life. What the common man perceives as party policy or sectional issue, the scholar understands as a manifestation of conflicting ideals of social control. Autocracy at one extreme is met by democracy at the other extreme. The practical outcome at all times has been an oligarchy more or less concerned with the welfare of all.

The conditions of life in a new country do not favor democracy. Men who can lead will lead and must lead. In times of peril the necessity of conserving each unit of force and directing it unerringly from some point of vantage is too obvious to admit of question. Such government is oligarchic. Such was the government of the American colonies and of every new state that has won its way into the Union. The ideal oligarchy is an aristocracy, the rule of the best. When an oligarchy becomes inefficient, when the few in control are not the best, then the progressive state must train up better leaders and reform its government. The record of our national efforts in these directions is the history of American education and American politics.

Our earliest schools and colleges were avowedly institutions for the training of leaders—leaders in church and state. It was vocational training maintained by the few in the interests of an aristocracy. In Harvard College, for example, down to 1772 the students were enrolled according to the social standing of their parents and the severest penalty that could be inflicted for infractions of college discipline was loss of social rating on the college register. The aristocratic lineage of the colonial school is perpetuated today in the professional course beginning in the secondary school and ending in the university. It embraces not only theology and law, but medicine, engineering, architecture, agriculture, dentistry, teaching, commerce—every vocation in which trained leaders are required. It is the choicest part of our educational system. On it we have lavished our wealth and to it our ablest educators have dedicated their lives. If it be aristocratic, we console ourselves that it recruits an aristocracy of which we need not be ashamed—an aristocracy not of birth and breeding, but an aristocracy of those best equipped for service to their fellow-men.

But there is another tendency in our national life, a force making for democracy. It found its initial impulse in the Puritanic conscience, and it has been augmented by each successive immigration of the oppressed and heavy laden of other lands. The political philosophy of eighteenth-century Europe found ready acceptance in the American colonies. Our Declaration of Independence and the Constitution of the United States, documents written under the storm and stress of social revolution at home and abroad, declared unequivocally the rights of man as man. On this foundation our fathers established a government dedicated to the proposition that all men are created equal. We, their children of the third and fourth generation, are still striving to realize that grand dream of liberty, equality, fraternity. That utopia has not been attained and may never be attained. Men are not equal today; they were not equal when our Constitution was written; nor yet when Puritan and Cavalier began their conquest of this new land. But what was true when our fathers first invaded the wilderness and began to build their homes and carve out new states was *equality of opportunity.* It is the basic principle of our national life. However much we glory in our achievements as a people, and in the honor that has come to strong men made great by doing great deeds, the finest flower of the past century is the deepening of our faith in the brotherhood of man and the increasing of our devotion to the ideals of democracy.

Meanwhile, as always, progress comes thru education. We have realized the justice of making our schools accessible to all and we acknowledge the necessity of compelling the attendance of those who might otherwise become a menace to society. But we are slow to appreciate that a course of training designed for a favored few puts the many at a serious disadvantage.

Our education system is unfair in that it does not do what the founders of this republic meant that it should do. It does not give equality of opportunity to all. This may seem surprising, particularly as we have been boasting for a century of our American liberty, fraternity, and equality. It is the boast, too, of most Americans that our great public-school system provides alike for every boy and girl taking advantage of it. This is half true—and dangerous, as all half-truths are. The fact is, the American system of education grants equality of opportunity to those who can go on to the college and the university. It takes little account of the boy—and less still of the girl—who cannot have or does not wish for a higher education. The ten millions of those now in our elementary schools who will be compelled to "drop out" to earn a livelihood will have missed their opportunity. But why? Do we in America have need only of professional men and "men of affairs"? Are those who pay the taxes and do the rougher work of life to be denied opportunity for self-improvement? Are only those who can afford to stay in school to reap the advantages of education? In a word, what are we doing to help the average man better to do his life-work and better to realize the wealth of his inheritance as an American citizen? These questions raise the problem of vocational training for those who must begin early to earn their living. It is, in my judgment, the greatest problem of the future, and one which we may not longer disregard and yet maintain our standing as a nation.

Our schools must grant equal opportunity to all. In most other countries, the school system is deliberately intended to keep some down while helping others up. So long as our mode of government endures we cannot shut the door of opportunity in the face of any citizen. It is the greatest experiment the world has ever seen, and while there are many who would gladly see it fail, it is our bounden duty to make it succeed. It would be presumptious to say, after only one century of trial, that success is already assured. This is only the beginning. We are just coming to realize some of our blessings, as we see more clearly for the first time some of our dangers.

How can a nation endure that deliberately seeks to rouse ambitions and aspirations in the oncoming generations which in the nature of events cannot possibly be fulfilled? If the chief object of government be to promote civil order and social stability, how can we justify our practice in schooling the masses in precisely the same manner as we do those who are to be our leaders? Is human nature so constituted that those who fail will readily acquiesce in the success of their rivals, especially if that success be the result of "cuteness," rather than honest effort? Is it any wonder that we are beset with labor troubles? We are, indeed, optimists if we see no cause for alarm in our present social conditions; and we are worse than fools if we content ourselves with a superficial treatment of the ills that afflict us. Legislation may do much to help us out of trouble, but it is only education of the right sort that can permanently keep us from ruin. There never has been a time when we were more in need of sound education, and in the struggle for existence that is yet to come we shall need a better education than we conceive of today.

There is one educational principle that is peculiarly American. It is that every man, because he is a man and an American citizen, should be liberally educated so far as circumstances will permit. A man, according to our Magna Charta, is entitled to life, liberty, and the pursuit of happiness. The first business of the schools is to make life worth living, liberty worth striving for, and the pursuit of happiness something for which no man need be ashamed.

We need, in my opinion, one more article in our educational creed. It is this. In making a man, make him good for something. It is a practice easily recognizable in the history of our universities and professional schools.

The next step is to see that the common man is equally well provided for. A beginning has been made in the enrichment of the course of study in our elementary and high schools, thus giving a choice of studies and better preparation for life if the pupil knows how to choose wisely; in the introduction of the natural sciences, manual training, and the domestic arts, thus giving some acquaintance with the industrial processes underlying our civilization if the subjects be well taught; and finally, in the differentiation of the school courses and school work whenever future vocations of the pupils are definitely known, as in the negro schools of the South, the county agricultural schools of Wisconsin, and the trade schools of some of our eastern cities.

But all this is only a beginning. At best but little can be done before the age of fourteen, but that little can be of the right kind. If nothing else is gained from the elementary school than a wholesome respect for man's industry, a good basis is afforded for participation in man's occupations. The serious preparation for practical life begins for the great majority of us at the age of thirteen or fourteen, on leaving the elementary school. The most dangerous period in the life of a boy or girl lies just ahead—say up to the age of nineteen or twenty. This is the time when the average boy must learn to be self-supporting, and when the girl must fit herself for domestic duties. It is the time, too, when technical training counts for most. I contend that every American boy and girl is entitled to practical help in this time of greatest need—and at public expense, too, if the state maintains high schools, universities, and professional schools for those who aspire to leadership in professional life. My reasons for this contention are these:

1. Anything that will contribute to the greater efficiency of the workman is a contribution not only to his own well-being but to the wealth of the nation.

2. Anything that will lead the workman to take more pride in his work tends to make him a better citizen and a more conservative member of society.

If it be possible to make each man, no matter what his social standing may be, an honest leader in his own field, a workman who is not ashamed of his handiwork, then we need fear no criticism of our colleagues across the sea, nor need we as an industrial people fear the competition in the world's markets. More than that, we need never lose faith in the righteousness of American ideals nor dread the consequences of our social democracy. If there be those who say the task is impossible, I answer in the words of General Armstrong, when some one doubted the possibility of negro education, "What are Christians for but to do the impossible?"

II. *EQUALITY OF OPPORTUNITY CAN BE SECURED ONLY BY PROPER RECOGNITION OF* (A) *INDIVIDUAL DIFFERENCES IN NATIVE CAPACITIES AND IN SOCIAL ENVIRONMENT,* (B) *THE REQUIREMENTS OF VOCATIONAL EFFICIENCY AS WELL AS OF* (C) *GENERAL INTELLIGENCE AND EXECUTIVE POWER*

EDWARD C. ELLIOTT, PROFESSOR OF EDUCATION, UNIVERSITY OF WISCONSIN, MADISON, WIS.

The preparation of my brief contribution to this afternoon's discussion of this important topic of the place of industries in education has been carried forward with no inconsiderable apprehension. Upon first inspection the main proposition, with its several corollaries, seemed to be so axiomatic, and the character of an existing opinion regarding industrial education indicated in general such unanimity, as to render any effort at demonstration as simple and useless as shooting at the classic "barn door." A more careful examination of this apparent axiom, and a more critical analysis of the implications of contemporary educational opinion, revealed a series of problems of more or less difficulty and intricacy. Thereupon the whole question quickly changed its cloak of simplicity for one of complexity.

At the first step of our examination and analysis, we are confronted with a sharp distinction between the *theory* and the *practice* of our system of public education. The land resounds with exclamations of loyalty toward a genuinely public education—an education *for* and *by* and *of* the people; yet how few and far between are the parents, the teachers, the communities ready and willing to make the change of educational creed and to offer the financial sacrifice demanded by their seeming loyalty. There is, I believe, a fairly reasonable explanation of this chasm between words and deeds.

The American public school rests upon the basis of the performance of a *political* and not an *economic* function. The cabalistic symbol of democracy—equality of opportunity—has possessed meaning for education only when attached to the political life. The history of the whole social movement for democracy, which has found its best expression in and thru the public school, is the history of a more or less conscious attempt to make a *politically* efficient people. The mediocrity of our success in the maintenance, thru education, of the condition of equity in political opportunity seems to have hastened the employment of the symbol of democracy for the maintenance of equity in *economic* opportunity. And with this has come the dim recognition of the probable insufficiency of the whole formula of equality. The problem of equality of religious opportunity in education has been solved by complete elimination; that of equality of political opportunity by a method of superficial inspection; that of economic opportunity by the fantasy of anticipation.

In fact, "equality of educational opportunity" bears every stamp of academic and philosophic abstraction. It never was, nor never will be, an ideal capable of realization. What we have, and shall attempt to bring about thru our public school, is an *equilibrium*, a balancing, of educational opportunity. Equality is significant of similarity, identity, of reward. An equilibrium of opportunity implies that grade of reward commensurate with capacities, whether those capacities are of the endowments of nature, of the acquisitions of training, or of the fullness of family coffers. The maintenance of such an equilibrium of educational opportunity will result in giving to industry its rightful share of competence, and give to education for vocation its rightful share of social respectability; neither of which may be said to obtain today.

Viewed largely, four forces may be said to contribute to the drafting of individuals into industry and to the selection by individuals of a vocation. The social, concerned mostly with artificial distinctions of social grade and rank; the economic, dominated alone by material reward; the personal, guided by indistinct individual interests and desires; and the educational, directed by ancient traditions of intellectual discipline. Each operates consciously or unconsciously; with few exceptions unconsciously, and this unconscious mode has ever been favored by formal education.

The chief argument in support of the main proposition that some definite preparation for vocational activity, especially industrial, within our scheme of public education, may be derived from the necessary improvement of the acknowledged selective function of the school. At the present moment, the distinct tendency is toward horizontal stratification of individuals into social classes, instead of a vertical selection according to specific efficiency. Vocational industrial education for all is no more likely to yield larger social results than the traditional, pseudo-cultural, static education of the present, unless it becomes consciously selective, unless it consciously fits the square industrial worker into the square industrial hole, the round worker into the round hole, the triangular worker into the triangular hole.

All educational reform passes thru four stages—the stage of stress, the stage of investigation, the stage of propaganda, the stage of reorganization. Of these, the stage of investigation is by far the most difficult of passage. What is needed today, before we can proceed with saneness thru the stage of propaganda on to the stage of rational reorganization, is investigation; facts, "Gradgrindian" facts pertaining to industry and to children. We need to determine, first of all, the extent of the demand for trained workers in specific fields of industry; we need to determine the character and the quality of the specific interests and capacities needed by specific industries. Above all, we need to determine the extent, actual and potential, of the individual possession of these specific interests and capacities. Here opens an entirely new field of activity for the study of social needs, and for the study of the pupils of the public school.

This study of social needs, this evaluation of industrial conditions, can be carried on successfully according to projected plans by a comparatively few trained scientists and skilled investigators. But the study of the individual vocational intelligence and interests, ideals and capacities, motives and necessities of the American boy and girl must be carried on, in the largest measure, by the school. Yet the school dare not assume the responsibility for such study, until there is raised up a new generation of public-school teachers—especially in the elementary schools—who know how to detect, to classify and to direct the potential industrial powers of the child. Even given such teachers, this goal is not possible until we begin to rid ourselves of the factory, piece-work system of education of our graded school. This of itself is an almost sure preventive against knowing very much about any individual pupil. The sum total of the superficial observations of eight or a dozen teachers, each of whom has an opportunity of studying and knowing the child merely thru one-half of a year, or at the most, thru a whole year, will not equal one-tenth part of the insight that a skilled, observant teacher might obtain, did the machinery of the public school permit close contact between pupil and teacher, thru several years.

Until we possess reliable data upon which to base a rational scheme of reorganization, the public schools cannot hope to become instruments for "industrial determination;" neither will they cease to prevent the present positive mis-selection of individuals for their proper station of efficiency and happiness. For a rightful selection must precede and underlie the maintenance of the educational equilibrium of democracy.

III. *THE MOST URGENT NEED OF OUR EDUCATIONAL SYSTEM IS AN ADEQUATE PROVISION FOR THE VOCATIONAL NEEDS OF CHILDREN DESTINED FOR INDUSTRIAL AND DOMESTIC PURSUITS*

JAMES F. MCELROY, CONSULTING ENGINEER, CONSOLIDATED CAR-HEATING COMPANY, ALBANY, N. Y.

A study of the attendance in the schools in the cities of the state of New York shows a very rapid falling off in the enrollment in the grammar-school[1] grades, of which the records of the city of Albany may be taken as an example.

The enrollment in 1st year of grammar school is 1551
" " " 2d " " " " " 1242
" " " 3d " " " " " 1317
" " " 4th " " " " " 1448
" " " 5th " " " " " 1252
" " " 6th " " " " " 1088
" " " 7th " " " " " 720
" " " 8th " " " " " 551

Thus it will be seen that the list of pupils that complete the grammar-school work amounts to only 35 per cent. of the total number enrolled in the first year of the grammar-school grades. This falling off in the enrollment is a serious matter and calls for careful consideration.

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[1] The term "grammar-school" evidently includes all of the usual eight grades below the high school.—[Editor.]

The manufacturing industries of Albany may be assumed to represent the usual trades found in cities of this class in this state. To determine the educational attainments of some of our operatives, I have had inquiry made of over one hundred workmen composed largely of machinists and hence representing a grade of intelligence higher than the average. This inquiry has developed two facts in which we are concerned at this time: First, out of 102 men there was not to be found a single graduate of a high school, nor a person who ever attended as a pupil in a high-school course. Second, out of 102 men I found only seven who had completed the course in the grammar schools. From this it appears that the education of all of these mechanics was limited to such education as is furnished by the grammar schools and that 93 per cent. of them belong to that class of pupils that drop out of school before completing the grammar-school course. On inquiry of other people interested in manufacturing, I am informed that approximately the same condition of affairs exists among people engaged in trades in their employ.

The ordinary mechanic in our manufacturing institutions is indebted to our school system for teaching him to read and write and for some instruction in mathematics, but outside of these elements of an education the schools furnish him practically nothing that is of value or helpful in the struggle which he must maintain for the rest of his life. The course of study in our schools is based upon the theory that the student will continue thruout the entire course and graduate from the high school, and this course is designed to prepare the student for admission to college. This course of study, it seems to me, is unjust, unfair, and unreasonable so far as it relates to over 65 per cent. of the total school population.

At the age of boys in the grammar schools they are fascinated with the study of mechanics and with all kinds of machines for generating or applying power. At this age a boy is much more impressed by doing things himself than by being told by other people how things are done. If our schools furnished him the opportunity that he longs for, there would be little tendency to shirk his duties and the services of the truant officer would not be required. There would also be no temptation on the part of parents to take boys out of schools in order that they may learn something practical elsewhere. The way to keep boys in school until they are sixteen years of age is to give them a course of instruction that will interest them and fire their ambition. As it is, you cannot keep boys in school until they are sixteen years of age, not even when your school authorities are backed up by the truant office and the police force. The boy knows better, and my feeling is that the boy is nearer right than some of you would be willing to admit.

Young men, destined for industrial pursuits, not only do not receive in the schools a proper education for their life-work, but after leaving school they find no place where they can receive instruction in the trades which they may select. Our manufacturers cannot afford to maintain industrial or trade schools, and it is not their business to do so even if they could afford it. This is work that properly belongs to the public schools. Of what interest is it to the manufacturer to establish trade schools when the mechanic will leave his employ and go off elsewhere to work the moment his trade is learned? It is to my mind clearly impracticable for the manufacturer, with a more or less changing list of employees, to carry on a system of instruction of apprentices. As you know, the apprentice system is a thing of the past. A young man cannot be bound to a manufacturer for a certain number of years of service as in the old apprentice system, but he leaves the employ of the manufacturer at will and if he has gained a good knowledge of mechanics and has become a good machinist, he readily gets employment elsewhere at good wages.

Under existing conditions, a young man learns his trade in a haphazard way and under great difficulties. The knowledge he gains comes to him a little at a time and from varying sources. Some of the knowledge is erroneous and not always consistent with things he already knows. He is not always able to distinguish error from that which is true, the wrong way from the right way. Things which he ought to know he does not learn at all. In the shop the good mechanic does not give to the poor mechanic the knowledge and results of the training which distinguish the two. The trained mechanic does not readily impart information to the beginner which would make the beginner a competing mechanic. It is under such a handicap as this that the average young man gains the simple knowledge with which his life-work is to deal. Not helped in the schools, held back and kept in ignorance by those already skilled, the result is that his knowledge at best is meager, unclassified, unsystematized, and unsatisfactory.

There is a demand for a radical change in our system of education for girls as well as boys, for the girl who is to become the mother of the household as well as the boy who is to earn the living for the family. How few graduates of our high schools or of our girls' colleges are proficient with the needle and understand the principles of cooking and the preparation of foods for the sick as well as for those who are well? What foundation is laid in our common schools for the knowledge which the mother must have in the care of her family and in the direction of her household affairs? This knowledge should be furnished by the schools at the proper time and in the proper way.

The employer of labor in this country suffers from the inefficiency of those upon whom the success of his undertakings most depends. The successful employer must have efficiency in the shop as well as in the office, in the service of manufacturing as well as in the service of management, and he is willing and ready to pay his employees in proportion to the efficiency of their service. It is for the interest of both employer and employee that men should be intelligent, as intelligence is the basis of efficiency. The characteristic feature of industry today is the demand for ability to do things, to get at results accurately and directly without unnecessary cost or loss of time. It is this ability which results in high wages to a certain class of employees and in profits to the manu facturer. It is the lack of it which causes a large class of employees to produce work that is unsatisfactory and without profit.

The question arises as to how can the difficulties of this situation be best met? I do not believe that the best results will be obtained by what are known as trade schools, that is, schools with a course of instruction necessary to develop skilled workers in a particular trade. I believe that instruction should be much broader and that young men should have a working-knowledge of several trades. We should recognize the fact that changes in our industries have taken place in recent years in the systematizing and classifying of labor, in specializing, and in the use of automatic labor-saving machinery, all of which prevent a mechanic from getting wide experience and general knowledge of all kinds of work. What a young man should have as a result of the common schools is a broad idea of the arts and processes, and of kinds of machinery by which processes are carried out. He should know much of the nature of materials, and this should be on a broader ground giving both wider knowledge and experience than that which would be gained in a school of a particular trade. This should be so broad that a young man would have a good preparation for any one of a number of trades and not be confined to instruction in a particular trade. A young man may study metals and metal-working and be prepared to do efficient and valuable work in forging as a blacksmith, but that would not fit him for running a lathe or a shaper as a machinist. If he learns blacksmithing he may know how to harden and temper metals, but not know how to cut metals, which would be the work of an ordinary machinist. Schools, in my judgment, should give a broad intellectual foundation, not only in the working of metals as done by the blacksmith, not only in the shaping and tempering of tools for cutting particular metals which is the trade of the toolmaker, but in the actual cutting of metals and the evolving of forms out of metals as is done by the machinist, and in the fitting and designing of parts of mechanism which he will be called upon to do.

He should have instruction in school in a variety of activities, because in the practical work in factories the division of labor there found necessary has a tendency to confine him narrowly to the particular trade in which he is employed. The routine work of the shop does not give him breadth of view nor broaden him intellectually, so that a man without a trained mind or one equipped with a general knowledge of facts finds, within the narrow place to which division of labor assigns him, that he is not in a position to understand fully all of the operations of a manufacturing business.

Some people seem to think that our technical schools are educating men as mechanics in the industrial work of the country. In my opinion such is not the case. The manufacturing of this country is not done by technical graduates and never will be. The technical graduate will never be satisfied to spend his life as a machinist drawing $3.00 to $3.50 per day, and whilst some of our railroads have required that technical graduates entering their employ shall work in the shops for a certain length of time, the technical graduate enters the shop as an impractical theorist who has the shopwork all to learn and whose work, on account of the lack of experience in the shop and lack of knowledge of shop practice, is inferior to that of the uneducated mechanic. Our technical graduate gets out of the shop as quickly as possible and secures a position of more pay and less arduous work. Whilst I do not altogether share in the severe criticism which is at times made upon the technical graduate and of his usefulness in the world's work, I do, however, believe that his work is elsewhere than at the lathe and planer. I am clearly of the impression that it is useless and impracticable to consider that our manufacturing industries are to be supplied with mechanics who are graduates of technical schools, or who are graduates even of high schools.

The manual-training high schools do not meet the necessities of this case, because: first, boys must enter upon their life work in the industries before such a course in the high school can be completed; second, financial conditions of those who must spend their lives in the industries of the country make it impracticable for the great majority of them to complete the manual-training high-school course; third, the work of the manual-training high school fits young men better for foremen than for positions as mechanics. This instruction is important, but it is of a higher grade than what is required for the great majority of our laboring class.

I have therefore come to the conclusion that the great need of our system of education is the provision of industrial schools that receive children at the ages at which they now drop out of our grammar schools, and that the work of these industrial schools should be completed when the pupils reach the age of about sixteen years. These industrial schools should be supported as a part of our public-school system and should provide instruction for practically the whole of our school population. Admission should be from the industrial schools to the high schools for those that desire to take that course. These industrial schools should give a working-knowledge of several trades and, particularly, those trades peculiar to the community should be represented in the course of instruction. The instruction should be given by practical men, not theorists. These schools should be opened as night schools where instruction could be given those not able to take the course in the daytime.

DISCUSSION

WILLIAM E. ROBERTS, supervisor of manual training, public schools, Cleveland, O.—One of the most significant facts established by school statistics is the large number of pupils behind their grade. Of the boys who entered the sixth grade in Cleveland last year $15\frac{1}{2}$ per cent. were of, or older than, the age at which they should have graduated from the eighth grade. What figures do not show so clearly is the reason for this loss of time. A careful analysis, however, leaves little question that a large percentage of loss is due to absence of those mental qualities which respond readily to the demands of the elementary-school curriculum, particularly to the complex work in arithmetic and technical grammar, and a consequent distaste for school work. The elementary-school courses fix arbitrarily a standard of culture and a means of development toward that standard to which all must conform, rather than offering opportunities for development along lines for which pupils are temperamentally fitted. Personal experience and experiment convince me that there must be a differentiation of work in the grammar grades to meet more fully the varying needs and capabilities of pupils whose powers are manifestly in the direction of manual expression. There must be provided courses, beginning with the sixth grade, preferably in separate schools, which boys may take, directed by the judgment of the school authorities and with the consent of parents. In these schools at least one-third of the time should be given to hand work upon which the greater part of the other school work should have a direct bearing.

The whole course should be so unified that the usual division into subjects would be almost impossible. I would have the mathematics confined to the simple rules, with direct practical bearing upon industrial work and experience in daily life, avoiding problems designed for mental gymnastics; reading selected to include history and geography, related largely to the industrial side of the work, and to civics; language and spelling with the thought of intelligent expression in speech and writing; penmanship sufficient to acquire legibility; drawing, both freehand and mechanical, particularly emphasized.

The manual side of the course should for at least two years be based upon general principles underlying industrial work, which in the final analysis is reduced almost wholly to work in wood and metals. The manual work of the third year could be devoted to specialization determined by the development of capabilities exercised in the first two years.

Such a school would have many outlets. It would save many pupils to the technical high school; it would lead directly to the trade school; it would prepare for apprenticeship; it would better prepare this type of pupil for life in general. It looks to the time when the elementary schools shall recognize a standard of culture not dependent upon examinations in intricate arithmetical problems and technical grammar.

That such schools are needed is indicated by the fact that so many pupils are kept in school, in spite of the loss of time, until they are practically forced out by stress of years.

I have used boys as illustrative. There is no reason why a similar course cannot be provided for girls.

HOWARD D. BRUNDAGE, Stout Training Schools, Menomonie, Wis.—The industrial school, in order to provide most efficiently for the vocational needs of children destined for industrial pursuits, must be so organized that each pupil feels himself an integral element in the work. He must exhibit a due amount of self-consciousness. He must not only feel, but actually have responsibility. He must realize that the value of the things produced in the school depends on him, and that the value of his services to his future employer depends on his personal character and on his judgment and skill as a workman.

In such a school there should be few instances where the worker can say, "This is not for actual use, and I need not be so particular." Such conditions are detrimental to his advancement and he is not breathing "shop air." This kind of school life must ring with reality.

The school should set high standards in the kinds of work done and constantly encourage their attainment. Thoroness and quality should be the immediate aim, speed and quantity the final aim.

However, the pupil should have clearly in mind that there are various grades of goods on the market and business contracts are made for first- and second-class jobs of work; but that the best workmen and the highest-skilled mechanics are engaged in the production of the highest grades of goods and in the performance of the first-class jobs of work.

Also it is necessary for him to understand that an employer's business agreements and contracts vary in their requirements regarding the quality of materials, the form of construction, and the perfection of finish, and that the workman as a producer must consider these, and accordingly endeavor to use material and means that will please, and fulfill the business requirements of the contract and at the same time conserve his employer's business interests.

This is surely a practical standpoint, and to be practical a workman must learn the essentials and nonessentials in his vocation—where to be, and where not to be, particular; how to perform work quickly, yet thoroly; how to cut corners legitimately; understand the tricks or "kinks" of the trade; how to produce the grade of goods or perform the class of work required, and this to his employer's profit and thereby do his part as a workman in giving an "all round square deal." In other words, the aim should be to show himself approved, a workman that needeth not to be ashamed, rightly divining the truth.

Therefore, I claim that the pupil in the industrial school must be an intelligent and real worker who produces the goods. He must be a vital factor in the work, a transformer, a positive not a negative force, and have an active not passive interest in his surroundings, where he is being prepared for life's work. This formative period of child-life spent in the right atmosphere and under proper training is what produces the "self-made" quality of stuff in the man, so essential to the individual and to society.

To create these conditions lies with the organization and management of the institution and the time has come in the life of this nation when immediate steps must be taken by its body of educators to meet the urgent demands of its citizens in making adequate provision for this great social and industrial need.

BENJAMIN R. ANDREWS, Department of Domestic Economy, Teachers College, Columbia University.—My remarks regarding vocational educational needs will be confined to the case of girls and women. Present education does not prepare for earning a living. Miss Addams' report in last week's *Charities* on seventy-eight New York girls who left school for work, repeats the story: nearly all in unskilled, unprogressive work; only two factors in day-school training found useful—skill in sewing and skill in business penmanship. Half the girls had sought supplementary training in city evening schools, but no real vocational help was found there.

In considering the case of vocational education for women and girls, two points of view must be regarded as fundamental: Woman's relation to self-support, and woman's relation to the home.

1. *In regard to self-support.*—The time is not far away when every girl will learn a specific piece of remunerative skilled work, just as we expect boys to do; this does not mean that married women will follow a vocation outside of the home save in exceptional cases. The American family and home will never encourage that. It does mean that girls will generally earn a livelihood in some skilled work for the three, six, or eight years prior to marriage, and will do so to their own good and the good of society; that this earning power will raise the standards of living in their parents' families, and give the impulse to a higher level when the girls marry and start their own homes; and it means, further, that this possession of skill in remunerative labor will, after marriage, afford protection and support, when families lose their male head. In the United States one married woman in five is a widow and is responsible, as was her deceased husband, for her own support and usually for that of children.

Woman's present relation to remunerative employment in the United States is shown by two facts: (1) Of women over ten years old, 18.8 per cent. were in 1900 engaged in remunerative employment. (2) Of the 377 lines of employment for men and women listed in the census, women had in 1900 entered all but seven, in greater or less numbers. Women are wage-earners then already, and if men's training is to be considered, women's must be also.

2. *Vocational training, as affected by woman's relation to the home.*—Of American women over twenty, 65 per cent. are married and inferentially responsible for a home and the rearing of children. Material conditions have changed and the business of directing

a home has become one of the most complex, as it always has been one of the most significant, of human tasks. A single instance—the care and feeding of infants involving milk modification, observation of conditions, and the application of varying formulae, is a matter made plain only by instruction, which ought to be provided for every young mother. Somehow, then, opportunities for training in home management, and all that that implies, must be provided.

Another phase is the training of girls and young women for remunerative domestic work. One thinks at once of the servant question, and who knows but that some day we may have trained servants. Already, on a higher level, college women are being trained for domestic administrative positions in hospitals, dormitories, and other institutions. On all levels, professional domestic training can be given and it is one of the economies of the situation that if a trained woman leaves employment and marries, she takes her skill into the management of her own home. One instance again: in every large city, thousands of girls, fourteen or fifteen years old, take as their first employment "minding the baby" of a neighbor at two dollars or thereabouts a week. It would be possible at once to provide a nurse-maid's course for these little girls, either in day or evening schools, which would professionalize their tiny tasks, give them skill in bathing, feeding, and caring for little children, raise the level of their present service, and unconsciously prepare them for their own home life later.

Woman's educational needs from this partial, vocational point of view are, then: First, vocational training for self-support; second, a preparation, incidentally in early years, and directly when the need arises, for the duties that fall to the direction of a home.

IV. *CONSTRUCTIVE ACTIVITIES AS AN ESSENTIAL AND IMPORTANT FACTOR IN THE ELEMENTARY-SCHOOL COURSE*

MISS EUPHROSYNE LANGLEY, SCHOOL OF EDUCATION, THE UNIVERSITY OF CHICAGO

"Constructive Activities in the Elementary School"—that is my topic, and any discussion of it must be prophecy rather than history, for as yet the elementary school has had no constructive activities. Ten years ago a wave of criticism to the effect that the schools were impracticable and could not hold the children led to a widespread determination to put in manual training. That was to be the specific for the ills diagnosed by the critics; but our specific, it is now said, has failed to work a cure. And why? For the very good reason that though the manual-training prescription was duly written out, the medicine was never actually administered to the patient. I cannot find a school in this country where shop-practice for boys and girls is found thruout the elementary school.

The name "manual training" appears often in courses of study, but when analyzed into its actual constituents it is, outside of shop-work for boys in the seventh and eighth grades, hardly more than a chaotic assemblage of various forms of "busy work," relieved now and then by a bit of knife-work for boys, sewing for girls, or, for the younger children, a dip into the realm of the aesthetic in what Mr. Veblein calls "clay-muddling." Few subjects have been so handicapped as manual training; at the outset there was little in the way of equipment, no kilns, no looms, no benches. There was no time, the subject being superinduced on an already overcrowded curriculum. There was no pedagogical experience. There was no real understanding of the place of handwork in the educational state, and, at the best, manual training has never been more than an unnaturalized foreigner *in* the body politic, not *of* it.

Can handwork be made an effective part of the elementary school? Yes, but there must be a new point of view. We must be ready to put into practice what the best psychological theory has given us. There must be an entire reorganization of subject-matter. The handwork must not be a new subject elbowing out space for itself and squeezing up the other subjects. No subject must be allowed to stand isolated. We must break down the pigeon-holes into which kinds of knowledge have been separately bunched. The three R's, tho hoary with respectability, are not the pivots on which the educational system turns. No child has an intellectual appreciation of the value of reading, writing, and arithmetic as such. They become of importance to him only when they are the means thru which he attains some desired end. Take a child in the first grade. Give him the simplest forms of constructive activity; let him build a playhouse, make jelly or dry apples, dye wool and weave tiny rugs. The wooden house, instead of being "so big" by hand, is a definite number of inches on the ruler. The materials that enter into the making of jelly are weighed and combined in definite proportion. The weaving of rugs demands careful laying-out of spaces before the design can be put in. Thus thru the actual making of things, number work, in terms of measurements and weights, is levied upon by each activity. The record of the work in the child's own notebook turns into reading and writing. In a perfectly natural, simple fashion, the child reaches out thru his social occupations to the more formal studies, which, under such circumstances, cease to be formal or even formidable.

As the three R's become the tools which express and reinforce the activities, on the one hand, so, on the other, history, geography, and nature-study, a group in which each is the complement of the others, should form the industrial and social background from which the activities themselves spring. It is illogical and arbitrary to tear apart subjects which rightly belong together in order to build a series of separate coops in which to house a curriculum.

Constructive activities demand a constructive method, and a constructive method insists that the order of introducing handicrafts should be from the kindergarten up, rather than from the eighth grade down. A right constructive method also implies that the handicrafts should not follow along a line of prescribed models arranged from the point of view of the tool and of the adult organizing mind, but should be based absolutely on the subject-matter taught and should be vitally related to each other.

One of the effects of such reorganization is a saving of time. With such fusion of studies as I have briefly indicated, all the formal subjects usually taught in the grade, plus actual shop-work in *all* the handicrafts, can be adequately taught without the expenditure of an extra half-hour of time. The cost of such reorganization would be chiefly the initial expense in the way of additional space and equipment, and the permanent expense of perhaps two additional teachers in a school of average size. And finally, to make such reorganization effective, there must be mental organization on the part of both grade teacher and special teacher, and the special teacher should add to a broad pedagogical outlook a sound technical training.

What would be the effect of such school work on children? The most startling assertion concerning the elementary school is that of those who enter the first grade 80 per cent. do not reach the eighth,[1] an educational leak which, if paralleled in business, would mean bankruptcy. It is my belief that no possible agency could so effectively hold a child in school as a right readjustment of the elementary course on the basis of handicrafts, and I say put the handwork in from the kindergarten up, because the children fall out chiefly in grades 3, 2, and 4, and in that order. Consider for a moment the agencies which the modern feeling of responsibility for the child brings into co-operative guardianship around the third-grade boy who wishes to play truant. A recent report lists them for us: The truant officer, the factory inspector, the probation officer, the charity worker, the sociologist, the social-settlement worker, the woman's club, the teacher, the principal, and the humanitarian—all these to make one boy stay in the third grade. And yet he slips through the meshes of the educational system and escapes to his true school, the street. This small boy has more ingenuity and more energy than the school in its present organization can use, an ingenuity and energy certain to be destructive unless we can make them constructive.

If the money spent, and now necessarily spent, on restraint, constraint, reformation, were turned over into the school funds and expended on prevention, children and communities would be immeasurably the better therefor. That constructive activities would hold the child is clearly apparent from our truant schools, where the most difficult children are so held, and the report of their desirable activities comes with pathetic emphasis to the good little boy who has no such opportunities. We can quite understand the inoffensive little chap who in Chicago was found deliberately throwing stones at windows that he might be sent to Bowmanville (the parental school) "where they make things."

Now if we do succeed in holding the children thru the eight grades our educational problem is practically solved. It is because we have not been able to do this that the manufacturers have come forward with their remedy which is to push the trade ideal down into the grades. Appalled at the lost 80 per cent., at the mass of raw material not converted by the school into marketable stuff, dismayed by their own inability to get skilled workmen, they say, "Give us the child at the earliest possible moment, at the place where you no longer hold him; let him select a trade and we will at least make a tolerable artisan of him." There can hardly be a movement more significant and more important than to have the proverbial apathy of communities toward educational questions broken in upon by the alert interest of business men. They are progressive, practical, accustomed to see a weakness and remedy it without any beating around the bush. They command money and influence. What they ordain is almost certain to come to pass. I heartily agree with their plan of establishing trade schools. They are an imperative need. But I am strongly of the opinion that the trade school should not begin its special work till the close of the elementary school. In other words, I do not believe in two sorts of elementary schools, one bent to fasten on to a trade school, the other bent to fasten on to a "culture" school. Handwork in the elementary school should be the same whether the child is destined for the carpenter's bench, the professor's chair, or any of the vast range of occupations lying between these. Differentiation can seldom come wisely into play in the elementary school. Vocational selection, if imposed upon the child while still in the grades, is likely to be a disastrous mistake. No teacher, no parent, even, holds the divining-rod whereby may be discovered the secret springs of a child's best future activity. Even if voluntary, early vocational selection is not to be trusted. It is liable to be whimsical, uncertain, determined by temporary influences. If the kind of occupation fervently chosen by every boy of ten were to reach mature realization, the army and the navy, the police force, and the livery business, would be steadily overcrowded. It is hardly reasonable to expect a child of ten or twelve to select out of the great industrial forces of the world that particular line in which his contribution to those forces should run, nor should it be the purpose of the elementary school to urge such selection.

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[1] Statement made at the National Society for the Promotion of Industrial Education, Chicago, 1908.

Courses in the elementary school should be planned with the idea of giving to each child the utmost in the way of general development possible to him. It is on this basis alone that constructive activities should be put into the first eight grades. I think of the child as at the hub of a wheel. All his studies and activities are the spokes that connect him with the rim, or the world in general. And he must be led to look along each spoke to each section of the rim. Each handicraft, each subject, should be considered as a means in throwing what Browning calls "films of connection" between the child and his environment. If you set him too early in an appointed groove, you unduly narrow his experience—you compel him to look along one spoke, to one section of the rim, instead of to all; you strengthen one film of connection at the expense of the others. Every child, whether he is to be later in trade or in scholastic life, has a right to the widest opening-out of his personal resources, the most varied activities, the most freely experimental stretching-out of tentacles that the best-planned, best-equipped elementary school can offer. By all means give every child a chance at a trade, but first give him the opportunity of being a developed individual.

Reorganization such as I believe in, a reorganization called for by two expert opinions, that of the business man and that of the small boy who plays truant at the third grade, would, I am confident, serve even the manufacturer's need better than his own method, which, indeed, he does not purpose as ideal but as a practical meeting of a present situation. Business statistics are as relentless as those of the schools and show that boys who go directly into some trade at fourteen to sixteen usually come to the limit of their advancement by eighteen, while those who can get more training are the ones who go on to higher positions.

To sum up: I believe in handwork in the elementary school, from the kindergarten up. I believe not in one or two activities, but in all the activities, taught in real shops, in a workman-like manner, from the standpoint of industrial history, to both girls and boys. I believe that the result of such training will be a product of greatly increased value to trade, to the college world, and to life in general, and I believe that this ideal can be wisely accomplished only when the business man and the pedagogue make it their common problem.

DISCUSSION

FRANK M. LEAVITT, assistant director of drawing and manual training, public schools, Boston, Mass.— The only procedure consistent with American ideals of free public instruction for *all* is the following-out, in some fashion, of the program which Miss Langley has indicated.

The public school is on trial and to hold its place in the esteem of the American people it must grapple with and solve this all-important problem of vocational training, and not hand it over to some other agency. Failing in this, the public school stands discredited and condemned.

There are three factors in the problem of industrial education: the manufacturer's or business interests, the educational interests, and the labor interests, and I place, in naming them, the educational interest between the other two, because that is just where in fact educators should stand. Between the demands of business on the one hand and the obstructions of labor unions on the other, the agency of public education should stand, holding the balance of power and turning all forces to the betterment of the condition of children. That the business interests cannot be trusted to deal with this question in a disinterested way can be all too clearly shown if we but recall for one moment the condition of child-labor as it exists in America today. That is another *story*, but let us not forget, however, the 2,250,000 children under fifteen who are wearing their lives away today in factory, mill, and mine, sadly degrading the next generation.

Some maintain that *all industrial training* must be given in special schools and that such schools should not admit children under sixteen years. If we accept Miss Langley's deduction that public instruction should provide *equal* opportunity for all, tho not necessarily the same opportunity, I do not see how we can refuse a considerable amount of constructive work—manual training, industrial training—call it what you will, to large numbers of our children who will surely take their places in the *ranks* of the industrial army. Such children need more manual training and a different kind of manual training from that which is given for its "cultural" value, so called, to those children who expect to enter business or the professions.

To be somewhat dogmatic—for the time is short—I believe that the program for a large city system must be somewhat as follows, in some sections of the city, at least.

Beginning with Grade VI, the children should have a chance to elect (or their parents to elect for them) admission to the "industrial class." (Let me say that this is not entirely visionary. We are actually doing it now in Boston, experimentally.)

In this "industrial class," five hours, at least, should be given to manual training—the time to be taken from drawing, physical training, and arithmetic. The work done in these classes, and the conditions under which it is done, should conform as closely as possible to actual industrial work in real life. The product should be not only useful, but should be put to use, preferably by the city. The articles made should be those which may be produced in quantities. The methods should be practical, and both product and method should be subjected to the same commercial tests, as far as possible, as apply in actual industry. What is it hoped to accomplish? To turn the attention of the children to things *industrial;* to give them an appreciation of *values*—value of materials, of time, and of modern industrial methods; to prolong the school life of the pupils while enhancing their chances for industrial success.

It is impossible to give an adequate idea of the Boston experiment without going into details, especially as regards methods, teacher, observed interest, increased efficiency, and disposition of work. Call it what you will, I believe it to be real *industrial education, in the public schools.* I believe that it is needed, that it will be welcomed by the parents, and that it should be in the public schools and nowhere else during the compulsory school period.

V. *AN INTERMEDIATE INDUSTRIAL SCHOOL BEGINNING AT THE SIXTH SCHOOL YEAR*

CHARLES H. MORSE, SECRETARY AND EXECUTIVE OFFICER OF THE MASSACHUSETTS COMMISSION ON INDUSTRIAL EDUCATION, BOSTON, MASS.

There should be no real industrial education, as I understand the term, undertaken before the child is fourteen years of age or at about the end of the ninth school year.

The term "industrial education" has been used by the Massachusetts Commission on Industrial Education for nearly two years to mean trade education. But this does not mean a trade education as understood by some to signify the instruction given in a school which teaches a degree of manipulative skill in the shortest possible time without regard to a thoro preparation for a trade. Neither should manual training be regarded as industrial training.

In the majority of cases in this country, manual-training courses are given by men or women who have never learned a trade of any kind, and they deny with much feeling that their courses should be treated as other than cultural.

Manual training should be given in all the school grades from the kindergarten up. But do not let us deceive ourselves. Such courses are no more industrial courses than the penmanship courses or the drawing courses now given in our elementary schools are industrial courses.

If I must plan a course which will ultimately lead to a trade, beginning with boys at twelve who are residents of a city, the course for the first two years would not materially differ from the work which would be given in a well-conducted grammar school for children of the same age.

I would have the child at that age study, in connection with other subjects, the manufacturing establishments of the community. He should know their business organization and general methods of management, their history, the sources of the raw materials used, the geography of the regions from which the raw materials come, the transportation facilities, and, in a general way, the various processes of manufacture. The markets for the finished product should be studied; also the special qualifications required of the employees, the wages for beginners, the average increase of wages, and the possibilities for advancement for an earnest, intelligent worker, as well as the hours of work and the steadiness of employment for each industry.

All this would be given as work in English, geography, and history. These investigations of industries must needs be conducted under the guidance of a teacher who could understand the bearing of such study upon the boy's mind. All of this work should be comprehended in every grammar-school course.

If such studies could be carried on under a broad-minded and well-equipped teacher, the boy's point of view would be quite different from that of the fourteen year old boy as educated today, and he would be prepared to choose an occupation more wisely. I look upon such study not as industrial education, however, but as a line of general education of value to every boy.

Last summer I visited a school in Cork, Ireland, which should be seen by every American teacher. Each classroom was completely surrounded by cases with glass doors, containing Irish manufactures in every stage from the raw materials to the finished article. And yet the school was not a trade school.

At fourteen years of age the industrial training begins. The boy should be given courses in woodworking and iron-working for one-half of each school day. This should be supplemented with other subjects, including drawing, arithmetic, simple bookkeeping, industrial geography, and industrial history, as well as a continued study of local industries. At the sixteenth year, such a boy would be prepared to study his chosen trade, having a foundation for that trade which could not be obtained in any shop in our American industries. These last two years should be taken either in a school, under shop conditions, one-half of the time in the classroom and one-half in the school shop, or by a combination of part-time in the school and part-time in a commercial shop. In the former case, the boy should remain in the school eleven months of the year, eight hours per day, except Saturday, when the school should close at noon. There should be no protracted vacations other than the month of August. One-half of the time should be given to shop-work, and the balance to the study of such subjects as have a direct bearing on the chosen trade, such as its history, drawing, mathematics, chemistry, and physics; and, in addition to these, citizenship should be studied.

Under the part-time system the boy would take these latter courses along with work in a commercial shop, by working in the industry for a week and then attending a continuation school for a week. Thus the theory and practice of the trade would go on hand in hand, and the boy would also be helping to support himself and his family. By such systems of trade education our boys would ultimately contribute more largely toward the prosperity of our country than is possible under our present method of trade education. Such courses of instruction are proving eminently satisfactory in numerous European schools, and the graduates of such schools are in demand after a shortened apprenticeship and are receiving the highest prevailing wages.

The problem for the boys who will conduct our farms is somewhat different from that just stated for the boy who intends entering the manufacturing industries. That he should be given preparation for his life's work in an agricultural school, and not in a high school with some agricultural courses attached, I have no doubt. During the past week the farmers of Massachusetts, thru the State Grange, appeared at the state house in opposition to a bill providing for agricultural and industrial courses in the existing high schools. Many of the superintendents of schools of the state argued in favor of the bill. The farmers said most emphatically, "This is not what we want." They said, "Give us independent agricultural schools."

We would all agree that some instruction in mechanical trades should be made a part of the work of an agricultural school. Much farm machinery must be cared for by these boys, and farm carpentry should not be neglected.

In these independent agricultural schools the girls should take many of the agricultural courses, together with domestic science and home dressmaking and millinery.

The school must be planned as a finishing school for the future farmers, but provision should be made for those who can continue their education. Such schools should fit the boys for the state agricultural college and both the boy and the girl for the state normal school.

For the city girl who must, at an early date, begin to earn her living, the problem is most difficult. We are informed by those who have made a study of this question that the average time a girl remains in productive industry is about five years. The question of educating a girl, therefore, for the industry in which she is likely to remain for so short a time must be considered as a distinct problem. These girls are destined, in the large majority of cases, to become the wives of our mechanics and the mothers of the coming generation. I can but feel that the school training these girls to earn their own living for five years should be accompanied by a large share of instruction which will fit them for the work of home-making which they are to pursue for the forty additional years of life.

An interesting problem is now being tried in the city of Boston in a section where the residents are very largely from Italy. At the request of their parents, fifty girls about thirteen years of age have been selected, who attend the upper grades in the grammar school during the forenoon. The entire afternoon session is devoted to hand and machine work in a separate and independent school provided thru private subscription. Here about two hours per day are devoted to sewing and dressmaking. The work cannot, however, be fairly classed as industrial work. I am informed that several of the girls who have become fourteen years of age since entering the school have continued in the grammar school that they might attend the afternoon classes. This work is in charge of enthusiastic women who are seriously studying this problem. We shall look forward with much interest to the result of this experiment. Certainly, the choice of all would be to retain these girls in school for a much longer time and give them a thoro preparation for home-making and also for a trade corresponding in thoroness to that suggested for the boys; and I sincerely hope the problem may be worked out with such a course as the ultimate aim of the girls' school.

I regret that ten minutes does not give me sufficient time to present this subject as it should be presented to this audience. I have confined my remarks to what I consider the essentials.

VI. *A TECHNICAL HIGH SCHOOL*

GEORGE H. MARTIN, SECRETARY OF MASSACHUSETTS STATE BOARD OF EDUCATION, BOSTON, MASS.

In a complete system of industrial education the place and function of a technical high school may be summarized as follows:

1. Such a school will have an avowedly vocational purpose. This will exclude the so-called general courses and also manual-training courses for culture which aim only to offer new intellectual feeding-grounds to boys who do not care to browse in the old academic pastures.

2. The vocations for which such a school would prepare are not the professions. Hence, courses especially designed to prepare for the colleges and for the normal schools would be excluded, tho these are really vocational courses.

3. Technical high schools may be commercial, agricultural, or mechanical. Mechanical high schools may be as varied as the manufacturing industries for which they are to prepare. A school may prepare for a single industry, or it may be polytechnic in its character, offering a variety of courses adapted to local needs.

4. In the age of its pupils, in the length of its courses, and in its preparatory requirements, a technical high school should correspond with high schools of other sorts. This would call for four-year courses following the completion of an eight- or nine-year elementary course, and would include pupils, roughly speaking, from fourteen to eighteen years of age.

5. Being a technical school, its distinctive function will be to develop economic efficiency, but in common with all public schools it must aim also to develop intellectual and moral character. Each of these aims is both individual and social.

6. The work of the school will be threefold: (*a*) To furnish technical knowledge and technical skill; (*b*) to promote intelligence, breadth, and refinement of a cultural sort; (*c*) to develop a sense of civic obligation.

7. For the first purpose there should be drawing, mathematics, and science, in kind and amount according to the needs of the industry for whose technique the student is preparing. Thus for agriculture there would be needed a larger proportion of chemistry and biology than of drawing and mathematics. For the mechanic arts, the course should be strong in drawing, mathematics, and

physics. The course in chemistry would be different in agriculture from that in tanning or dyeing or household sanitation.

8. Technical skill in mechanic arts can be acquired only in a shop, so that shop practice must constitute a large part of the work of the technical school. It may be gained either in a school shop or in a commercial shop. Which is better the experience of the world has not yet determined. Both are in operation and each has its advantages. Undoubtedly a good school shop is better than a poor commercial shop, but a school shop to be good must contain the essential features of the best commercial shop. Its instructors must be shop-trained men, its hours and discipline must be those of the shop, and its product must be a salable commercial product. Whether the product should be sold or not is another question. What is true of the shop-work is equally true of the farm-work.

9. In order that the student may become a useful citizen as well as a skilled workman, the school course should include history, economics, and civics. Time also should be provided for thoro physical training, including personal hygiene and organized athletics. English should be cultivated thruout the course by composition and forensics. Opportunity should be offered to those students who might find relaxation and aesthetic pleasure in the study and practice of vocal and instrumental music.

No attempt has been made in this brief outline to indicate the sequence of these studies nor the distribution of time among them, nor have I undertaken to discuss the mode of administration or financing or the governmental relations of the school.

It will be seen that I do not believe in throwing away the existing high school nor in turning it into a shop nor in substituting a shop for it. This whole work would be destructive of the most cherished American ideals if, while teaching young men how to get a better living, the schools failed to teach them how to live a better life.

AGRICULTURE, INDUSTRIES, AND HOME ECONOMICS IN OUR PUBLIC SCHOOLS

WILLET M. HAYS, ASSISTANT SECRETARY OF AGRICULTURE, WASHINGTON, D. C.

Our country has come to recognize that changed economic conditions, an increase in technical knowledge, and newly devised forms of school work have made it necessary and practicable to broaden out our educational machinery so as to give a large place to the industrial vocations. Existing schools must enrich their courses of study along these new lines so vitally connected with the thought and work of the people, and the newer types of schools especially fitted to the industrial life of the people must be developed so as to meet the new conditions in the largest and best way. The volume of the new work is very large. No one class of schools can do all of it. The question might be raised whether it is better to adapt existing schools to do this teaching or to develop new schools for this purpose. Manifestly we shall get on all too slowly, even if we utilize both plans.

Generally speaking, one-third of our menfolk are in agriculture, and one-third in the non-agricultural productive industries; while two-thirds of our women are in the vocation of home-making. Thus at least two-thirds of all our people enter the vocations of agriculture, the mechanic industries, and home-making, and nearly all these receive their only schooling in our public schools. The percentage of the whole of our workers engaged in agriculture has decreased in a century from three-fourths of the whole population to one-third, and the indications are that it will decrease to one-fourth. As this percentage decreases the proportions become more nearly static, and those leaving the farm for the city are replaced by those leaving the city for the farm. Under conditions in which only a very small part of the population move from the farm to the town and only an equal number move from the city to the country, the rural community should have for the higher grades in its schools strong vocational courses, and the education for the city youth should close with courses related to the city vocations. There should be also easy methods of transit from the country life schools to the city schools and vice versa. All will agree that there should be in the city schools some agriculture both as a culture-study and as a means of interesting those peculiarly attracted to and adapted for the life of farming or the work of specialists in lines related to agriculture. All will agree, also, that the school in the rural community should have some instruction in mechanics because of its general educational and its vocational value in farming, and because it may enable those youth with pronounced mechanical instincts to find and develop their peculiar talents. And all will agree that the girls in all public primary and secondary schools in country and city should study home economics.

The expense of developing strong agricultural courses in city public schools is prohibitive, because even with state and federal aid few cities would be able to support courses for all the vocations in their own districts. Agricultural secondary schools, consolidated rural schools, and the small district rural schools, for a similar reason, cannot offer courses in mechanic arts, commercial business, and other city vocations. Large highly differentiated schools covering all fields might be devised, but they would not be near the people where the pupils can sleep in their parents' homes.

For those who cannot secure in their home schools vocational training along the lines they desire, special vocational schools are necessary. For the non-agricultural industries these schools may best be located in large centers of population, so far as practicable, in the atmosphere of the vocation for which preparation is sought, and near the homes of a large portion of the pupils, each choosing that school which best meets his needs. For the agricultural industries these vocational schools should be in the country, preferably near a town or city. Those experienced in agricultural secondary schools designed mainly for young men and young women who are to remain on the farm, or are to change from city to country life, are unanimous in the belief, so far as I know, that these schools will not succeed so well as annexes to city schools as when separate and on large farms. As the school of art, theology, literature, or science needs an environment, an atmosphere of its own, made possible by a strong special group of teachers and students in a large institution, or in a separate institution, so the finishing industrial vocational school secures advantages from being distinctive as a separate school or as a strong unit in a large school. Weak industrial departments in schools mainly devoted to non-industrial subjects are being developed pedagogically, and as the industries become better organized so as to increase the amount and regularity of employment, these industrial departments will oftener than now succeed, whatever the school environment. But it will always be true that the schools highly developed for special work in agriculture, in the mechanic industries, arts, and trades, and in home economics, will establish the highest standards in education in these respective lines. The trend seems strongly to the development of large secondary mechanic-arts schools and large secondary agricultural schools as parts of our public-school system, and to include home economics in both. There are, however, none so narrow as to limit instruction in these practical lines to these large special secondary schools. The industrial studies are finding more and more room in the academic public secondary schools in cities; and especially in the secondary schools of villages, towns, and cities not large enough to support separate technical schools. Even short trades courses are finding favor in the public schools of some smaller towns where there is need for expert tradesmen in specific industries, as well as in large centers of population. And even the primary schools of our cities are giving more and more attention to mechanical and home-making vocational work.

A most powerful movement has set in to place agriculture and home economics in our rural schools. The efforts have been fairly fruitful in devising ways of successfully installing at least the beginnings of these studies in the one-room district school. But modern conditions have decreed that the little red schoolhouse shall live in blessed memory, and that gradually the consolidated rural school shall take its place, and shall grandly combine the general and the rural vocational subjects into a broader, richer, and more useful course of study. Here is the most promising of all fields for vocational school work in relation to the productive industries and to the homes of the community.

It is worthy of note that there are already established, or being established, thirty agricultural secondary public schools out of the 300 needed to place one in each group of ten of our 3,000 agricultural counties. Even more significant is the fact that 600 consolidated rural schools have taken the place of 4,000 little district schools and that two-thirds of our district rural schools seem destined eventually to give way to the consolidated rural school. It seems clear that the great bulk of all instruction in agriculture and country home-making will be given in the consolidated rural school. The agricultural secondary school will set standards for the consolidated rural school and provide its teachers, and the graduates returning will make possible its excellence. The colleges of agriculture, the state experiment station, and the federal and state departments of agriculture will each serve most important purposes; but they will do their largest work thru the consolidated rural school. In this neighborhood school two-thirds of the farm boys and girls will combine school-going and apprenticeship education on the home farm. In the districts too sparsely settled or too isolated to consolidate their schools, the other one-third of our rural youth will have teachers who have been trained in the consolidated rural schools, in the agricultural secondary schools, and in the state normal schools equipped to prepare teachers to instruct in farming and home-making.

AN ARTICULATED SCHOOL SYSTEM

The United States has a system of articulated schools for non-agricultural communities well organized. The primary eight-grade schools, including simple forms of instruction in manual training and home economics, are now well defined in most states. The secondary four-year courses in academic studies, often with electives in technical and industrial lines, in technological subjects, trades, business and home economics, and the shorter vocational courses, as in trades, business, and home economics, are also being definitely organized. The same is true of the collegiate schools offering academic courses, often with many elective subjects leading toward vocations; professional courses, as law, medicine, and pedagogy; science courses, as chemistry and physics, and engineering courses, as electrical and mechanical.

For agricultural communities the one-room rural district school with six to eight grades, including wherever practicable some agriculture and home economics, is the well-defined type; and no doubt it will remain in one-third of our agricultural area. The consolidated rural school with eight primary grades and two secondary-school grades, including instruction in agriculture and home economics, is coming forward as a type of local school for all of our more productive agricultural areas. In some cases this school is combined with the village school, but in most cases it is in the open country with only farm patrons. Estimates place the number of strictly rural consolidated schools, each covering an area approximately five miles square, at six hundred. This type of school is far more advanced in type, in numbers, and in the firm hold it has taken on the rural community, than is realized by any but the few who have especially studied this class of schools. Mr. George W. Knorr, after visiting two hundred consolidated rural schools, estimates that more than 99 per cent. of their farmer patrons have become ardent supporters of consolidation. The farmers who try this form of school are as unanimously in favor of it as those who adopted the grain reaper or the sewing machine upon first trial were in favor of those implements.

The secondary agricultural school with the third and fourth high-school grades or years is coming forward to supplement the two high-school years of the consolidated rural or village school, and the little unconsolidated school with four-year secondary courses in agriculture and home economics.

Every person, so far as I know, who has really absorbed the plan and spirit of agricultural secondary schools as developed in this country, and especially those who have followed the farm boys and girls thru these schools back to the home farm or into the college of agriculture, is exceedingly optimistic concerning the future relation of this class of schools to our country life.

The college of agriculture thru half a century of struggle has gained an honorable place among collegiate institutions, and these institutions already form a crown to that branch of our system of articulated schools which is related to our country life. Buttressed by the research work of state agricultural experiment stations and departments of agriculture, the improvement of the quality of work in these institutions is going forward rapidly, and the multiplication of agricultural research and educational institutions is greatly increasing the demand for their graduates.

There is keenly felt in our agricultural education a need of such an articulation between the schools relating to agriculture and to country life as exists between all our schools and the colleges devoted to the non-agricultural professions. The farm youth has no continuous school ladder in the line of his early training, and few are encouraged to go on to our poorly filled collegiate agricultural courses. Some secondary schools are needed which along with a broad training lead farm boys forward to leadership in technical agriculture as well as into other vocations. But what is still more needed is broad secondary courses which articulate at both ends with the farm; which attract those farm youths who are to remain on the farm and specifically prepare them for their work.

Those who fear that providing special schools which would graduate annually 20,000 to 30,000 farm boys and girls in secondary agricultural schools would divide our school system into two systems need only to use arithmetic to discover how small a part these are of the three millions who annually close their school careers. The problem will still remain of reaching the several million pupils from rural homes. The establishment of several hundred strong secondary schools of agriculture, and of mechanic arts, as well as the introduction of agriculture, mechanic arts, and home economics into our public normal schools, will make possible the introduction of these subjects into all our schools. The opportunity which seems to offer of installing vocational education thruout our school system seems a very large interest compared with which mere local interests are of very minor weight. Those interested in our youth will be able to make our schools even more American than they now are if the American industries have a larger recognition in all classes of our public schools.

The connection of our collegiate, secondary, and elementary schools which deal with country life, with our state experiment stations, with the United States Department of Agriculture, and with other institutions which discover new truths, creates new values as by breeding plants and animals, and helps devise new pedagogical methods in technical studies, on the one hand; and their connection, on the other hand, with the practical management of our farms and farm homes, is of far greater significance than any relations between city and country life schools, important as they may be. The unity with the home education during school life and with the after-graduation life-education is the matter of larger concern. The few finding it well to do so can easily shift from non-agricultural to agricultural courses, or the converse, with far less loss to society than will occur from having the schools lead many into fields other than those into which the pupils are to go. The schools which today are dwarfed, as compared with the functions they have to perform, are those secondary schools or "people's colleges" which lead to the industrial vocations where large numbers are to be accommodated.

It should clearly be recognized that the types of primary, secondary, collegiate, and graduate schools to make a well-formed American educational system are all present, and that the weakness of the system is quantitative. The secondary academic schools leading to the collegiate and graduate professional and so-called higher technical vocations are not outgrown; the schools leading to the productive industries are simply undeveloped. To articulate with the farm, the shop, and the home in a broader and more unified way the vocational studies must be magnified. While all our schools need strengthening, placing equal stress on building up all classes of schools on their present status would retain the present unequal development. The need of the hour is to build up the industrial vocational courses in our system of secondary schools.

Some conservative persons have wrongly defined the vocational school as an institution in which industrial subjects displace the accepted academic studies. The fact is that most of these courses are approximately one-third academic or literary, one-third scientific, and one-third vocational. Practically, the foreign languages and a small part of the other general studies give way to book, laboratory, and shop or outdoor studies related to the basic industries of the community or to home-making. In two ways these courses are broader than the general academic course. The student can accomplish more when part of his work is with things, and his book work is brighter and means more to him. His other studies have a clearer setting, a keener interest, and wider co-ordinations. The more practical school leads to a broader view of life, better fitting the youth to choose a calling. It at once prevents the dreamy student from becoming bookish and holds the too practical student longer on his book tasks.

One prominent educator has expressed fear that to supplement our school system with secondary schools highly equipped for training in farming and farm home-making would peasantize our farmers. Suppose the great state of Iowa had 10 of these schools with a total of 5,000 students, and should graduate annually 1,000; suppose further that 400 of these graduates would become teachers of agriculture and home economics in consolidated farm and village schools, eventually for the most part becoming farmers or farmers' wives; 400 return to the farm direct; 100 go forward to the agricultural college, and 100 into non-agricultural vocations. How less than one trained farmer per township would peasantize the farmers of a state is not made clear. It may be supposed that the author of that statement conceived the idea that the oncoming consolidated rural school and the agricultural secondary school would be narrowly agricultural.

Those who are experienced in developing secondary courses in both of these classes of schools for the vigorous American farm boy and girl realize that the course of study is broadened by adding to nearly all the academic work ordinarily given in high schools strong, inspiring, practical subjects relating to the farm and the farm home. Since the mind is here developed along lines in which it is to have food for thought thruout life, the education is truly started for the whole lifetime.

How so changing our courses of study in the rural schools that the youth not only receives vocational training but remains longer in school and secures more of the traditional education as well, will peasantize farmers, has not been shown. It certainly is not based upon intimate knowledge of the actual effects of typical schools now in operation. That education can un-Americanize or peasantize, is truly a novel proposition.

Money can never secure the land from farmers highly trained to succeed in and to appreciate the management of farms and farm homes. Strong schools combining general and vocational education are the nation's great safeguard against peasantizing the people. Educated people rule. Our fathers installed Americanism on this rich continent, and thru a broad and efficient educational system the kings of finance are to be kept under the rulership of the people. Newly centralized commercial powers require newly organized power of the people. The productive unit—the man—must be increased in economic, social, and political power, and this requires general and vocational education.

The same author objects to building up schools especially devoted to country life, fearing that the village and city schools will be seriously injured by withdrawing from them the vigorous farm boys and girls who now attend there. Another writer insists that our republicanism depends upon educating all classes together in one set of schools. The experience of 600 consolidated rural schools has shown their 10,000 farm patrons that this and many other objections to country life educational institutions are fallacious. In so far as experiments have gone in the mapping of counties to consolidate our rural schools, the tendency has been for more rather than less pupils to be conveyed into the schools of villages and smaller town centers. The method of dividing the districts so as to carry more to the village school, thus helping to build it up, or to carry more to the consolidated farm school more or less distant from the village so as better to insure a rural atmosphere, is a subject as yet open for investigation. Where there is a village as well as a rural community to be served, probably combining the village school and the school for the rural pupils on a school farm beside, the village will oftenest best serve the largest number. But the farm school out in the country, and the agricultural secondary school, where the farm boy or girl at the age of seventeen to twenty boards for two or more winters, will give a vastly broader point of view, a wider acquaintanceship, and a stronger social status as well as a better preparation for the management of the farm and the farm home than is possible under the alternative plan of a little agriculture in a general course of study or of a little agriculture and home economics in existing schools.

Allowing agricultural education just to grow, or trying the impossible task of securing state money to introduce agriculture into existing secondary schools, nearly all of which are in cities, is apparently a very poor alternative. Let that education for rural youth grow as it will, but let us give specific direction to federal and state money into vocational schools to set standards for and impetus to a more practical education in all schools. All know that local tax measures of the state or city will do well to yield sufficient revenues for the academic studies. Federal and state money, limited to the studies deemed too expensive by the local community, will result in a co-operation between state and locality which will provide schools including both general and vocational education.

The proposition in the Industrial School Bill now before the Sixtieth Congress has rapidly grown into wide favor. Many national and state organizations of farmers, of labor leaders, of educators, and of manufacturers have generally either indorsed this bill or have taken such action that their executive boards may properly favor this measure in practically its present form. Congressman Davis says that many members of the House of Representatives and Senate express the desire to help enact it into a law. It equitably distributes money raised by general taxation, giving its share to every district in the land. It is generally agreed that the worst fault of our schools is that they discriminate against the productive industries and home-making; and correcting such a general local mistake is clearly a federal function.

Those who earlier feared that national appropriations would tend to centralization realize that taxes raised by the federal government and turned over to the localities with which to build up state institutions accumulate the strength in the state and actually decentralize government. The results from federal appropriations for state colleges of agriculture and mechanic arts and the state agricultural experiment stations absolutely dissipate that fear. Those who feared that the present Secondary Industrial Education Bill was the forerunner to revive the movement centered years ago in the so-called "Blair Bill," which designed to put the federal treasury behind our public-school system, acknowledge that this bill adds no new principle of law to that in the Morrill Act of 1862, confining the expenditure as it does to industrial education even more rigidly than does that act.

INDUSTRIAL EDUCATION IN THE FIFTY-NINTH CONGRESS

The Fifty-ninth Congress passed the Adams Act, adding $15,000 to the similar annual appropriation to each state experiment station; and made into law the Nelson Amendment giving to each state college of agriculture and mechanic arts $25,000 more annually. It also liberally increased the research and educational funds of the United States Department of Agriculture. But of equal or greater significance is the fact that at this session were introduced bills to extend federal appropriations to secondary education in agriculture and the mechanic arts. Following the meteor-like financing by private subscription which gave $800,000 to equip eleven agricultural secondary schools in Georgia, two bills were introduced along this line by members of Congress from that state. One would give $10,000 to each agricultural secondary school established in a congressional district; the other would provide a fund for a branch experiment station at each of such schools. These were followed by a bill embodying not only these two ideas, but also including funds for mechanic-arts secondary schools in all our cities. A bill to enable state normal schools to prepare teachers to teach industrial work was also introduced.

It is stated of this new bill that it simply carries out the intention of the Congress of 1862 which inaugurated education for the industries by providing for a college of agriculture and the mechanic arts in each state. It seems clear that Congress looked upon all education above the primary school as collegiate education; advanced schools not then having been differentiated into secondary and collegiate institutions. Congress had no means of conceiving the magnitude of the undertaking, nor of the resources the present and future decades can afford to devote to this vocational education; and at that time there were only vague dreams of our great Department of Agriculture or of state experiment stations.

Briefly stated, the terms of the proposed bill provide that Congress shall appropriate annually to each state ten cents per capita for secondary industrial education. Of this sum each city with more than 2,000 inhabitants shall receive its per-capita share, the only limitation being that this money shall be used for studies in mechanic arts and home economics in schools of secondary grade. To the population outside of cities of the size named the ten cents per capita shall be used for studies in agriculture and home economics in secondary agricultural schools. In both the city secondary industrial schools and in the agricultural high schools thus established the state or locality must furnish the lands, buildings, and also current funds to provide all the necessary general studies to round out strong courses of study. The only restrictive provisions are that the federal money shall be effectively used for studies relating to agriculture, the mechanic arts, and home economics. Since the money is not sufficient to be applied to the consolidated rural school and to the village school where rural pupils must attend while sleeping in their parents' homes, that part provided for those who expect to be farmers and farm home-makers is directed to be used in agricultural secondary schools of rather large size. This insures that excellence of equipment and teaching force which will justify the nearly mature farm youth in expending time and money to attend.

The bill further provides that Congress shall appropriate one-fourth the sum received by each agricultural high school for a branch agricultural experiment station to be located at these institutions and requires the state to appropriate an equal sum for these stations. This branch station fund will aid the practical teachers to understand fully the soils, crops, and live stock, and the plan of farm management suited to the respective districts. It will provide means with which to co-operate both with the state experiment station and with the United States Department of Agriculture in breeding, testing, and distributing new varieties of field, orchard, and garden crops; in improving the breeds of animals; and in working out systems of farm organization, field management, soil fertilization, and crop production. The assistance these branch stations located in each agricultural district of the entire country would give to the state experiment stations and to the United States Department of Agriculture in enabling them better to do the work of creative breeding, testing, and distributing varieties of plants will, by increasing the values of our crops alone, more than pay the entire sum annually provided by this bill for practical education in city and country.

As a federal measure the ten-county district plan is far more conservative than the plan of establishing one agricultural secondary school and branch agricultural experiment station in each county. To provide one well-equipped school in each county would cost several times as much as to equip one in each ten counties. And even yet more expensive would be the plan of using federal money to place agriculture in existing consolidated rural, township, and village schools and in secondary city schools where rural pupils attend. Our rural township and consolidated schools are developing secondary courses. To pay out of the federal treasury for secondary agricultural studies in these schools would mean undertaking to place this instruction where all the pupils could secure it, while yet sleeping at home. The cost would be several times the cost under the plan proposed, and those who, in opposition to the pending bill, propose that alternative surely have not considered the cost to the federal treasury. The more conservative plan is to use federal money only to produce leaders and teachers for the proposed larger secondary schools and thus to prepare the state and the locality to meet the local expenditure and to manage their home problems.

The ten-county plan provides branch agricultural experiment stations of a size which have proven stable and efficient. Districts of this size provide the needed permanently equipped experiment farm on which the state experiment stations and the federal Department of Agriculture can carry on such long-time and careful work as improving the crops and animals of the respective states by breeding, and comparing systems of crop rotation, soil fertilization, and farm management.

The consolidated rural school and especially the village school, in which the farm boys and girls begin their courses of vocational training, need the large finely equipped agricultural high school where the secondary vocational course relating to country life can be completed, where both instruction and inspiration will be given. The branch experiment station will articulate with the ten-acre farm of the consolidated rural or village school, and many of the seeds and plants and many of the new ways of doing things developed by departments of agriculture and by experiment stations can be carried by the branch station to the rural school farm and from there thru the pupils to all the farms of the country to which they are respectively adapted.

This new educational bill, under a plan of restricting the use of federal funds to industrial studies, proposes to broaden, round out, complete and make more effective our entire educational system, alike for city and for country. It will do wonders for our farm boys and girls, for our city youth of all classes, and will start our colored race on a new era of industrial interest, enlightenment and efficiency. Instead of breaking up the unity of our system, it brings about unity by unifying school education with education outside the school. This measure was written in the light of the lessons learned from the administration of the land-grant or state college and the state experiment station acts.

Following such noteworthy examples as the Minnesota, Wisconsin, and Nebraska agricultural high schools and branch experiment station organizations, 300 of these institutions would accommodate 100,000 farm boys and girls, most of whom are not seeking an avenue off the farm. Probably 20,000 would graduate annually, the majority returning to take leading places in their farm communities, a large proportion entering upon teaching as in the consolidated farm schools, in village schools, in normal schools, and in the small district rural schools, and probably 10 per cent. going to the agricultural college.

Following such splendid examples as the St. Louis, St. Paul, and Washington mechanic arts secondary schools, hundreds of non-agricultural secondary schools will accommodate hundreds of thousands of city youth who wish to pursue courses in mechanic arts, industries, and trades, and girls who wish to have technical training along home-making lines. Tens of thousands will annually graduate and be prepared rapidly to gain high efficiency in the expert trades or in the keeping of homes. Not a few will proceed to the engineering or other technical colleges and the graduates of these schools will eventually grow into leadership of many of our manufacturing and transportation industrial enterprises. But the great majority will take the well-paid places requiring masterful artisans, now too often taken from American youth by highly skilled foreigners. These schools, instead of being places to turn out cheap tradesmen, will supply men who, having joined scientific information, school-shop experience, and actual service in their chosen trades, will set new standards for our expert trades. Under public management, they will treat fairly both the man who has labor to sell and the man who is seeking to employ labor. They will tend to increase wages in these lines; and they will tend to increase the output from labor and to increase the remuneration both of the laborer and the capitalist. Many of the women graduates will splendidly build up the home-economics instruction in all schools where girls attend, from primary to collegiate, insuring that the housewives and mothers of our land be expert in their work. The improvement which will come thru instruction in home economics in the agricultural high schools and in the mechanic arts high schools will repay all the cost to the federal, state, and local governments required under the provisions of this bill.

Probably the most important feature of the new educational plan in our public-school system is the extension of the school life into the youth's work period: the dovetailing of the school attendance into the entrance upon active life. The youth in the secondary course in the consolidated rural school or in the agricultural secondary school devotes alternate six-month periods to school and to the work of the farm. And during the six months out of school the work is made educational by the co-operation of teacher and parents. Likewise, some manufacturing concerns co-operate with the schools. and give the students apprenticeship training one part of the year, taking another group at another season, or the years of work at school and in the apprentice shop are alternated, or even the months or the weeks in school and in the shop are alternated. In some cases the boy's day is divided between the school and the apprenticeship shop. The evening continuation-school for those who must work the whole day is still another form of joining school and practical life. General plans need to be wrought out, that the pupil may change from school to real life in a natural way, not easily nor yet too abruptly, nor in a way too strenuous for the development of full physical and mental health.

An arithmetical statement of a completed system of country life educational institutions for a state like Iowa, which is nearly all agricultural, will aid in an understanding of the new movement to give to those who are to farm an education at once broad and vocational. Iowa has one agricultural college in the central one of its ninety-nine counties. An agricultural high school in each group of ten counties would provide ten of these schools. Consolidating the

130 rural schools and the half-dozen village schools of each county into 20 consolidated rural schools and 6 schools in which the farm and village schools are combined would provide a total for the state of practically 2,000 consolidated farm schools and 600 village, town, and city schools to which rural pupils are hauled by teams. We have thus one agricultural college, 10 agricultural high schools at which the pupils must board, and 2,000 consolidated farm schools. It may be assumed that some pupils will go from the village and city schools to the agricultural high school, but that more will go from the farm to the city, general, and special secondary schools, and that for the present purpose the village and city schools may be left out of the general figures. It may be further assumed that each consolidated rural school will have 130 pupils, 20 of whom are in the high-school course, for the most part in the first and second high-school years, and 110 pupils in eight primary grades.

A normal proportion of students in the three classes of institutions would then seem to be about as follows: Primary students in 2,000 consolidated rural schools, 220,000; secondary-school students in these 2,000 consolidated rural schools, 40,000; secondary-school students in 10 agricultural high schools, 4,000; and agricultural collegiate students in the agricultural college, 400. No doubt many would go from the largest consolidated rural schools directly to the state normal school, while others would attend the agricultural high school before attending the normal, thus better to prepare to teach in the consolidated rural school. Similar figures might be used to show the relation of the city secondary schools articulating with the engineering and other courses in the State University at Iowa City, and in the College of Agriculture and Mechanic Arts, at Ames; also of the agriculture, manual-training, and home economics in the village, town, city, and agricultural schools, to the State Normal School at Cedar Falls.

The bill now before Congress is open to defeat or to improvement and passage. Broadly speaking, it proposes to change our expenditure from say $4 per capita to $4.10 per capita; and to provide that this added 2½ per cent. of our school expenditure shall be placed under a plan where it can be used only for training in agriculture, in mechanical industries, and in home-making. We all know that this is the side of our educational machinery which has not kept pace with our needs. Some may be willing to take the responsibility of opposing this plan now so auspiciously started, or to load it with other propositions good in themselves but handicaps to the main proposition.

It is of interest to this assemblage of school officials to state that those officials of state normal schools and of state departments of public instruction who are promoting a federal appropriation for normal schools and those interested in securing federal support to secondary industrial education have each recognized that the two measures represent a single movement and that they should be combined. Already steps are under way to frame a bill around which all can unite in a common movement to put industrial education into our public-school system, wherever and in whatever form local conditions may require. In the secondary schools the studies relating to the industries will be mainly directed toward the preparation of pupils for those agricultural, mechanical, and home-making vocations into which most of them will enter; but in a less direct way these studies will be used to prepare teachers for these subjects. The normal schools, on the other hand, will use the proposed federal funds mainly to prepare teachers in agriculture, manual training, and home economics; but incidentally will add materially to the sum of vocational training, as many of their students will at most teach only temporarily.

The greatest object of education is the uplift of the whole people, the greatest good to the greatest number. But this must be done in large part by the development of leaders. Leaders must not be alone leaders of religion, literature, art, and science. There must be leaders of the community, of the everyday life, of the common work, and of home-making and social intercourse. Our existing schools are rapidly developing along many of these lines. For our industrial communities, secondary schools are needed which will produce many leaders broadly trained to be at once economic and moral leaders and leaders in social and home-making lines. The agricultural high school, with its fidelity to the truths of nature's science, its power-giving along economic and home-making lines, its uplift thru noble school officials, its opportunities for experience in social life and in working in public meetings and in students' co-operative organizations, and with its strong voluntary religious work in Young Men's Christian Associations, and Young Women's Christian Associations, and with its after-hold on its graduates, is a unique and most powerful institution for the production of country-life leaders. The city high school, with studies related to the industries and to home-making, and the separate industrial secondary school, also, have great potentialities in the preparation of all-round leaders in the industrial communities of our non-agricultural workers.

This enlarged expenditure for teaching the children of our native and recently arrived Americans how to make better homes and to increase their production of commodities has the broadest possible national significance. We are in world competition with nations able and willing to make commodities at lower units of labor charge than we. We must either increase the efficiency of our labor units or be willing to sell them at lower wage prices. America has charge of the world's highest standards of wage and of living. Industrial education has a very large place beside a reasonable tariff in keeping America's dinner pail full. Let us adjust our differences, if indeed we have any, and unite on this broad plan to turn the face of our schools from its too exclusive attention to the splendid traditional studies, and let it shine upon those who work with their hands as it now shines upon the so-called learned professions. Let us try to please all except those who fear to add to the education of the boy and girl studies along the lines of the industrial work in which most of them must earn their bread and purify their hearts by the sweat of their brows.

DISCUSSION

E. T. **Fairchild**, state superintendent of public instruction, Topeka, Kan.—To prove all things and hold fast to that which is good is the educational spirit of the hour. Custom and tradition are no longer terms to conjure with in determining the curriculum.

In endeavoring to solve the problem what knowledge and what training is of most worth new tests are being applied. The passive interest of the abstract is being supplemented with the active interest of the concrete. The strong presentment of the necessity and value of the study of agriculture and home economics in the public schools, which we have just heard, is in complete accord with the general movement to recognize the other 98 per cent. in our public schools.

It is not so much a question of *what*, as of *how*, and *when*. With more than half of our people engaged in agriculture and home-making, the public has every right to demand that the schools shall train the pupils with a training that shall adapt them to their environment. When we reflect that many states have a rural population of 70 per cent. or more, the need of an industrial training becomes all the more apparent.

The question whether agriculture shall be taught in special schools, such as are contemplated in the Davis bill and such as are in operation in at least three of our states, or whether it shall be attempted in all of our high schools, is a highly important one. While I fully recognize the importance of the measure advocated by Dr. Davis and realize the great impulse such a law would give to agricultural instruction, I cannot but feel that it would be much better if assistance could reach all high schools where agriculture and home economics are taught.

In my own state, Kansas, the Agricultural College is a separate institution and articulates closely with the rural school. With a population of 1,650,000 we should have but comparatively few schools reaping the benefit of national aid. If pupils are obliged to leave home it would seem that they might with greater profit attend our large and splendidly equipped Agricultural College. I confess to a great deal of sympathy with the argument advanced by Professor Davenport in his address on "The Place of Agriculture in Our American School." Instead of special schools for a special class, let us have strong schools with a sufficient number of courses to meet the varying needs of the student-body. Breadth of view, a wider outlook, and a closer understanding and sympathy with the life-work of others will follow.

The consolidated school will afford much opportunity for instruction in certain phases of agriculture, which may easily serve as an incentive to take a more extended course in the high school.

In our state we have a class of high schools that are peculiarly adapted to the introduction of courses in agriculture and home economics. Under what is known as the Barnes law, a favorable vote by any county places all high schools therein, maintaining a four-year course, and preparing fully for the university, in a position where they may be supported wholly by the county at large. At the last general election forty-three of the one hundred and five counties took advantage of this act and today more than eighty high schools are being supported by their respective counties, and forty more high schools are establishing conditions that will render them eligible to like benefits another year. As an equivalent for such county aid, tuition is free to all pupils in the county. In addition to these schools some twenty counties have elaborately equipped county high schools, supported by the county.

Both classes of schools are largely supported by the farmers, and it seems peculiarly fitting that agriculture and home economics should be taught therein. It is pleasing to be able to state that excellent courses in these subjects are being offered in several of these schools, and that they are entirely satisfactory to the farmers themselves.

I have said that it is no longer a question of what we shall teach in the high school. This question has gone beyond the stage of debate. The people whose school it is have demanded that the industrial and vocational shall be recognized, and shall have a place in the curriculum. The next step is to see that agriculture and home economics have the same place of importance and availability in the high school that they have in the college.

LORENZO D. HARVEY, superintendent of Stout Manual-Training Schools, Menomonie, Wis.—In the little I may have to say in the present discussion of the general topic, "The Place of Industries in Public Education," I wish first to express my appreciation of the forcible presentation of the subject of agricultural industries and home economics in public schools to which we have just listened. It has presented in a masterful way the arguments for the extension of educational facilities for industrial education. It has shown the possibilities thru the development of the idea of consolidating rural schools and the broadening of their curricula so as to embrace those studies of vital interest to the country boy and girl; and it has outlined an articulated system leading from the home of the child living in the country to the college, while at the same time presenting a course of instruction admirably fitting the child for the active duties of life within his environment.

I must confess that I am not as optimistic as the writer of the paper, concerning the early and general development of the consolidated farm school. The consolidation of rural schools is not a new idea. The six hundred of them now in existence do not present a large showing for more than twenty years of agitation, but their more rapid increase in later years indicates that in the coming years they will increase in number very much more rapidly than in the past. In many states practically nothing has as yet been accomplished. The present systems of school organizations in many of these states make consolidation extremely difficult, while the conservatism of the rural population where any increased expenditure of money is concerned acts as a further deterrent. Of the six hundred schools now in existence probably not one realizes the ideal which the author of the paper has in mind. It will be many years before that ideal will be realized in a large number of schools. I am not arguing against it. I am simply stating what I believe to be a fact, for the purpose of emphasizing the idea that not only the plan proposed but all other means of effort looking toward the development of a better system of instruction in rural communities should be utilized to the fullest extent.

The purpose of the Davis Bill, as outlined, is one which must commend itself to all. I trust it may be so modified that, if it become a law, it shall not operate to fix a single type of secondary agricultural schools for all communities, especially as to area of the district which such a school shall serve. I hope the bill may be so modified as to leave to each particular state the distribution of the money appropriated to that state for secondary agricultural schools to such schools as shall furnish proper facilities to a reasonable number of students without regard to the area of the district served.

Upon the general topic, "The Place of Industries in Public Education," I wish to say that while I recognize the importance upon social and economic grounds of the establishment of special vocational schools, I think the problem of industrial education is a much larger one than this. I believe all will agree that with a proper organization of the elementary and secondary school work, the longer pupils can be induced to remain in these schools before entering upon a vocation, the better for them, for society, and for the state.

I should regret to see distinct vocational schools established in such numbers and with the vocational side so emphasized as to present an inducement for children to leave the public schools earlier than they now do, or earlier than is necessary. We hear much of the different types of vocational schools in other countries and especially in Germany. We have much to learn from these countries in the organization of these schools in the United States, but I hope the time will never come in this country when the falling off in attendance of pupils in the public schools shall equal that of Germany as these pupils pass from their thirteenth to their fourteenth year. Up to the thirteenth year practically the entire school population of Germany is to be found in the public schools. In the fourteenth year the number has dropped in many cities of that country to less than 10 per cent. of the children of that age. If in school at all, they are in the continuation or trade schools.

In this country manufacturers do not want apprentices at fourteen years of age, and at that age they are not sufficiently mature to do the best kind of work in the preparation for a vocation. In our larger cities it is unquestionably true that many children are of necessity compelled to leave school at an early age, and that the continuation school or the trade school must be provided to meet their needs.

The report of the Massachusetts commission shows that a very large percentage of the children between the ages of fourteen and sixteen in the public schools have not withdrawn from them because of necessity, but because they were not interested in the work which was offered them, or because their parents did not see in it anything which appealed to them as of value in increasing the industrial efficiency of their children.

I believe it is entirely feasible to modify our elementary and secondary courses of instruction in our public schools by the introduction of handwork, so that the work offered will appeal, on the industrial side, to these children and to their parents.

It is argued in some quarters that manual training is in no sense a preparation for industrial efficiency; that its purposes are cultural rather than vocational. I should rather put it that its purposes are both cultural and vocational, and that the work should be so organized as to serve both purposes. It is not a question of what has been or is being done in the way of manual training in this or that public-school system. It is a question of what can be done and what purpose it may be made to serve.

In the acquiring of any trade, I care not what it may be, there are two distinct stages. During the first stage the learner is concerned with finding out the *what* of each particular process which must be mastered, the *how* in performing, coupled with the performance of the process under the guidance and control of the attentive mind. During the second stage the learner is occupied in developing skill in the accurate and rapid performance of each particular process and in the correlation of these processes to meet the demands of the shop in which he may be employed. This skill is developed through the repetition of that which at the beginning of this stage he could perform reasonably well when done slowly and with the closest attention to every detail of the doing, continued until the process is performed accurately and rapidly with little mental effort beyond that involved in initiating the motor activity demanded by the process.

In the statement of the scope and character of work demanded in the first stage, it should be observed that there are three steps in the mastery of any one process: first, the determination of *what* is to be done; second, the determination of *how* it is to be done; third, the doing for the accomplishment of the *what* thru the application of the *how*. It must be observed further that the necessary knowledge of the *how* requisite for the proper performance of the process may not be acquired in advance of any effort in doing, but the learner must have in mind how he proposes to perform any act he regards as necessary in the process before he begins the action. The result of the action may show him that the manner in which he attempted the doing was wrong and that he must revise his conception of the *how*. But always the knowledge of a *how* must precede the doing; the doing modifies the *how;* this modification reacts upon the doing until the proper standard of correctness is reached.

The first stage is one thru which every learner must pass in the mastery of a trade before he can properly enter upon the second stage, during which skill in processes and their use is to be developed, no matter whether the trade is learned in the shop, in the school, or in both school and shop.

This is not the time to discuss the educational principles which determine the place, scope, and character of manual training in the elementary and secondary courses of study for training purposes other than for industrial efficiency. But I venture the assertion that the three steps which characterize the first stage in the mastery of a trade must also characterize every phase of work in a manual-training course which requires an intelligent use of tools and materials in constructive processes, in accordance with sound educational principles. Therefore, it follows that the first stage in the mastery of trade processes, in its rudimentary form at least, is found in all manual-training courses based on sound educational principles and adequate in scope, and that, with proper equipment and competent teaching force, manual training may be extended so as to apply the work of this stage to a considerable number of trades. The second stage may be completed in the shop, in the trade school, or in both.

Manual training in its earlier stages must of necessity be carried on without direct reference or relation to the development of skill in any particular vocation. The training which it gives in close observation of an object to be produced from any given material or as the result of effort in the construction of that object, or determination of wherein the effort has failed and what must be done thru further effort to remedy the failure, the training of the hand to execute mental judgments, furnish a preliminary preparation of high value as a basis for intelligent workmanship which employs the hands later on.

In the later development of manual training it may be so organized as to bear a very definite relation to certain processes largely employed in the industrial world, and at the same time to secure the kind of mental training needed for the proper development of the individual. In a general way it may be said that the following things are essential for industrial efficiency in the workman:

1. Habits of close observation.
2. A high ideal as to what constitutes honesty in workmanship.
3. Habits of accuracy in work.
4. Comprehension of what is good in design as related to use in connection with the work in hand.
5. Knowledge of materials best adapted to different forms and types of construction.
6. Knowledge of construction processes in the treatment of materials.
7. Skill in the care of tools and in their use in industrial processes, and skill in using machinery.
8. Skill in freehand and mechanical drawing.

The foregoing statements are general, but specific applications may be made of them so far as they apply to any particular industrial process or trade.

The practical problem for any community in organizing work in manual training in the public schools so that it may bear the most direct and immediate relation to the industrial efficiency of the boys on leaving school is to consider, first, the manufacturing industries of the community where skill in operation is required and which are likely to furnish employment for the boys upon their leaving school; and then to determine the kind of training thru which the boys will make the greatest progress toward skill in the special industry or industries.

In case there are no manufacturing industries in the community in which the school is located, and it is still desired to give training which counts most largely for industrial efficiency within the particular trades or skilled industries which are likely to prove most attractive to the boys of the community, those trades or industries are to be considered.

With the incorporation of a properly organized manual-training course as a part of the work in the public schools, greater inducements to pupils to remain in school will be presented than exist under present conditions; and as a result pupils will remain in school longer, will get a broader training, and in acquiring every one of the eight requisites I have enumerated as essential for industrial efficiency in the workman they will have made some progress, and in all subjects except those in which skill in the use of machinery is considered they will have made very decided advancement.

NURTURE AND PROTECTION OF PHYSICAL WELLBEING OF PUBLIC-SCHOOL PUPILS

I. HOW CAN THE SCHOOL MAKE CONTRIBUTION OF PERMANENT VALUE TO PHYSICAL DEVELOPMENT?

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During the past century and to an ever-increasing degree within the past quarter-century the school has had thrust upon it a fundamental, new problem and a new responsibility: fundamental, because education is not worth while if it is secured at the sacrifice of health; new, because only recently has education come to dominate the great bulk of the child's waking time. If the permanent result of these new conditions is not to be the uprearing of a generation of physically undesirable citizens, the school must see to it that the health interests of the pupils are as energetically and as efficiently looked after as are any other parts of the school work. This involves the creation in each school system of a department of school hygiene or some other organization for the adequate care of this set of needs.

Among the reasons for the organizing of a Department of School Hygiene within each department of education the following may be stated as a fundamental principle:

The great increase in the length of the school year and the changes in the character of the child's physical environment make attention to physical health necessary now as it has never been before.

The schools do not differ from other institutions of the time in having undergone profound changes during the past century. One hundred years ago, 5 per cent. of the people of the United States lived in cities of 8,000, or over, population; now 36 per cent. of the people live in such cities.

Then, few children had more than three months' schooling per year; now, city children have ten months' schooling per year.

Then, the recesses were out of doors; now, only a limited number of city schools have space in which the children can take such outdoor games that were possible in the old school yard.

Then, practically all the pupils had to walk considerable distances to and from school; now, city children have to walk a few blocks only.

Then, there was a large variety of outdoor muscular work for the children to do on the farm—aiding in doing the chores, milking the cows, getting the horses, caring for the poultry, tending the garden; now, the bulk of the work is done by machinery. It is no longer possible for a large percentage of the city children to do their needful muscular work by helping their parents.

Then, in the schools there were taught chiefly the three R's; now, because of these changed conditions of daily life, it has been found necessary to introduce into the schools muscular exercises, manual training, nature-study, cooking, dressmaking and the like.

Then, a considerable territory had to be drained to get enough children to make the small country school; now in the thickly settled areas of cities great school buildings are erected on nearly every block. The constant hearing of noise, the lack of quiet, the lights in the houses, and on the streets at night—these are all relatively new and evil.

Then, we had children helping their parents; now, we have child-labor.

All these make a profound contrast between former conditions and those which obtain now.

We are told that 25 or 30 per cent. of the school children have eye deformities sufficiently serious to interfere with their school progress. It is the general opinion that this condition is directly related to the unwise treatment of the eyes in school life.

It has been discovered that a very considerable percentage of the children have such difficulties with the nose and throat as to interfere with proper circulation or proper respiration. A very large number of children do not have such care at home as insures their coming to school cleanly in person. The hearing of quite a number of children is below par, so that they fail to take advantage of much of the oral instruction that is given. Some of the children develop crooked backs, or scoliosis; occasional cases of chorea have been discovered. Sensational stories have been told with reference to the malnutrition of city school children. Allowing for all the exaggeration that there may be, it is undoubtedly true that there is a remarkable number of children who, because of unwise feeding or of insufficient feeding, are in a condition of vitality too low to profit by the school education. More than half of all the children in the schools have sufficiently decayed teeth to account for many of the neurotics and for a great deal of the malnutrition.

From 30 to 40 per cent. of all the children in the middle grades are one, two, or three years behind their grades. This in many cases is due to some physical cause.

To help remedy this situation, there needs to be a Department of School Hygiene.

Attention to the physical wellbeing of school children would result in great and immediate economy.

In all of our great cities, a considerable proportion of the school children are above the normal age for the grades. According to the report of the city superintendent of schools of New York City for the year ending July 31, 1907, the number of children in the public schools above the normal age on June 30, 1907, was as follows:

First year	9,073	Sixth year	22,862
Second year	19,039	Seventh year	13,502
Third year	26,514	Eighth year	6,412
Fourth year	30,251	Special D	4,289
Fifth year	30,813	Special E	13,769
		Total	176,524

It is difficult to estimate the direct money cost to the school system of these over-age pupils. Some of them are only one year over age, while many more are two, three, four, and even five years older than they should be for the grades they are in. For safety let us estimate that only 50 per cent. or 88,262 such children in New York are behind their grades on account of defects which might be remedied. At the average cost of tuition last year—$30—the loss to the city amounts to $2,647,860, for each year that these children fail to make progress.

A further and important consideration is that if the number of backward children was reduced by half, the necessity for part-time classes would be done away with.

The Americanizing of the large alien population involves their receiving new ideals and new habits of life with reference to health and the care of their own children.

A large fraction of the children who are in our city public schools either themselves come from non-English speaking countries, or are the children of those who come from those countries. How large a proportion of the population of our great cities is made up of persons of foreign parentage is not generally realized. The facts as told in the late census in regard to some of our leading cities are as follows:

POPULATION OF NATIVE AND FOREIGN PARENTAGE IN 1900

City	Per Cent. Foreign	City	Per Cent. Foreign
Boston	72.2	Newark	82.8
Chicago	77.4	New York	76.9
Detroit	77.4	St. Paul	72.6
Jersey City	70.5	San Francisco	78.1
Milwaukee	82.8		

The public schools are a primary factor in the development in these persons of ideals and feelings that are basal to life in this republic. The training with reference to efficient living, right ideals of health, and the care of children needs to be given to these children as it does not need to be given to the native-born American citizen, whose social heredity carries such basal information.

This education can best come thru the example of a Department of School Hygiene in its care of physical health.

The present state of medical knowledge allows us to aid in educational matters in a way and to a degree never before possible.

During the past generation medicine has been becoming scientific. Our knowledge of preventive medicine has developed almost entirely within this generation.

By means of this new medical knowledge it is possible for the skillful physician to discover and remove many conditions prejudicial to health and education, which were beyond our reach a century or so ago. Boards of education should avail themselves of this new development of medical science.

Problems before us indicate the need of expert medical counsel. Some of the problems are as follows:

Posture.—The tendency of the children to acquire bad habits of posture—malposition of the spine, with resulting interference with circulation, respiration, and digestion, seems to be inevitable so long as the present hours of sitting still remain. Thus, school furniture of a proper character is important.

Vision.—It is not enough for us to discover the cases of ocular deformity which are occurring in the schools. What we need to know, if possible, are the exact causes of such deformities.

Nose and throat.—There seems to be a great increase in the number of children having difficulties with the nose and throat. Is this due to general disability, to dust in the school rooms, to malnutrition, or to any other removable cause? What are the best ways of handling these difficulties?

Nutrition and growth.—We believe that there are many children who fail to profit by their education because they do not have enough nutrition.

Nervous diseases.—Many children have the beginnings of nervous diseases which interfere with their school life, and which are more or less serious in their subsequent meaning. We need to know the causes of these diversions from the normal and the best means of meeting them.

Fatigue.—What are the conditions for the most efficient study on the part of the pupil, i. e., can a child do more in eight hours than in seven? Can he do more in seven hours than in six, or the reverse? We have no accurate information in answer to these questions, nor can such information be secured easily. It demands the most expert work and wide acquaintance with what is being done elsewhere.

In the modern scientific business life the technical expert has a permanent place. The erection of the modern city structure involves a co-operation of engineering and architecture as never before. The electrical and mining work being done involves groups of experts, each connected with some special phase of the subject. The same applies to business. The general business man has vanished; his place has been taken by experts in various lines. The school boards have had thrust upon them new problems, as have business and science. The erection of school buildings has involved the work of skilled architects. The size of the timbers that will support the roof of a given span, the strength of the structure in relation to its height—these are technical questions of architecture and engineering.

Questions of stress and strain of material have thus come within the purview of one of the subdivisions of the work of boards of education. Similarly, boards of education have been pushed into the business world in the purchasing of their supplies. The hundreds of different kinds of material used in all the grades in all of the schools, the coal for fuel, and the like, involve for their wise purchase and administration the same buying expert that is demanded for any business house. Questions as to the purchasing of coal and other commodities are not questions of psychology and pedagogy, but are questions of business. In what quantities, and what to buy, and when to have delivery made, what systems of auditing and accounting to adopt—these are technical questions and they must be met by the technical business expert.

It is my opinion that the group of problems centering about the health of school children demands technical treatment of a nature similar to that required for the departments whose duties I have just sketched. If the children's eyes are becoming defective because of lack of wisdom in the choice of type, the length of line, width of margin, the spacing between lines, it is of fundamental importance that something be done to procure proper textbooks and thus remove the cause of the eye deformity. But for this, the advice of the technical expert is needed. It is not a matter of untrained common-sense—any more than the question of the stress and strain in a building is a matter of untrained common-sense. If the present modes of sitting in the public schools are responsible to any degree for the crooked backs that we sometimes see in children, we should know it, and then change the habits of sitting. This, again, is a matter for the trained orthopedic surgeon. It is not a question of psychology or pedagogy—at least not until after the diagnosis and treatment have been decided upon.

How much home study shall children of a particular age be allowed or required to do? This, also, is not a question of psychology or pedagogy; it is a technical question for the physician. What lessons shall children study at home? This is a question of pedagogy and school administration; but the number of hours for home study, or the time when a child may do his best work—these are biological problems. These are problems that are capable of more or less exact determination.

Such facts as these lead us to believe that there should be, co-ordinated with the other activities of boards of education, a department composed of men who are technical experts on the various questions of health in relation to school life.

The school will make no contribution of permanent value to physical development till it seriously attacks this series of problems with the implements of science.

Is it not obvious: (1) That the detection of contagious disease in the schools, involving daily visits and the power of the law to act, belongs in the nature of the case to the board of health? And further (2) that the care of ventilation, recesses, lighting, seating, exercise, hours of home study, is the business of the board of education?

The general principle involved is that where the object is the protection of the community the board of health is responsible, and where steps necessary to the proper education of the individual are concerned, the Board of Education is responsible. If these propositions are true they leave but one division of the topic open to discussion—namely:

Who should conduct the examination of school children for defects liable to interfere with proper growth and education, such as adenoids, defective eyesight, and hearing?

Whoever does this work, it is further obvious that such records must follow the child from grade to grade and also from school to school; that they must be considered by the class teacher and, most important of all, that each case must be consistently followed up so that in so far as is possible such disabilities may be removed. That is, they are an important part of the school records and must be so made and administered as to be available to the school authorities; so that the Board of Education must at least be one of the active parties in such a medical examination.

Further than this there is as yet no general agreement. But as an individual it seems to me that this work should be done by the board of education because: (1) it is done for educational purposes; (2) it must be constantly and intimately connected with school records and activities; (3) it does not need to be connected with the other work of the board of health; (4) it differs in kind from the inspection done for the detection of contagious diseases.

III. *MEDICAL INSPECTION IN PUBLIC SCHOOLS AS CONTRIBUTING TO HEALTH AND EFFICIENCY*

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It is now more than sixteen years since Boston started the agitation for the medical inspection of schools in order to harmonize the two great duties which the state owes to its children—namely, education and the preservation of health. Prior to the introduction of medical inspection into the public schools of Boston (1894) every state, having upon its statute books a compulsory educational law, was in the position of compelling by law the children of its province to go directly into the midst of dangers to their health. Unfortunately some states are yet in that same indefensible position. That these dangers are real and a menace to the individual and to the community no one denies today; that they can be almost entirely avoided or removed is beyond dispute. How far medical inspection of school children may contribute to health and efficiency by pointing out the prevalence, the causes, and the means of the removal of those factors tending toward mental stagnation and physical retrogression is the problem which I have been asked to present to this association.

At the beginning of the nineteenth century Peter Frank, of Austria, issued his *System of Complete Medical Police*, setting forth the duties of physicians to schools. In 1832 the number of lessons was diminished in Sweden for reasons of health, and in the same year France issued regulations concerning medical inspection in schools. Many of the scientific congresses of Europe in the third quarter of the last century discussed the need of medical inspection of schools. School physicians were appointed subsequently in different cities of Sweden, Austria-Hungary, France, Egypt, Belgium, and Holland, as well as in Japan, Chili, Argentina, Switzerland, Russia, Roumania, Servia, Germany, England, and the United States.

The progress was not without opposition. First came the distrust on the part of the teachers that such additional authority established in public schools would give rise to friction, confusion, and over-emphasis of the sanitary and the hygienic factors in school life. Then the argument of the municipal authorities that the financial expenditure involved was not justified by the existing state of health of the school children; the attitude of the medical profession that the private practice of physicians might be injured thru the measures employed by school inspectors; and lastly the anxiety of parents lest meddlesome interference might destroy the rights and the authority of the home. Then, too, the impatient pressing forward by zealous advocates and the jealous warding off by honest conservatives add much to the confusion and disturbance incidental to the introduction of all new public measures, as well as in changing fixed traditions. Gradually, however, these fears subsided and the opposition passed into mingled feelings of indifference, incredulity, or ridicule.

Little was then known of the great possibilities in preventive medicine. Tuberculosis was an inherited disease; spinal curvature was due to a "fall;" deaf children were heedless or disobedient; measles and scarlet fever were diseases which every child should have; diphtheria was "quinsy," unless it "turned into croup" from which "no one ever recovered." The child suffering from defective vision was the dunce of the schoolroom until, growing too large for the grade, or driven from school by ridicule and shame, he found peace in the truant school or in the shop and factory where his defects became a menace to limb and life. The many statutes on law books the world over, having for their object the prevention and regulation of child-labor, the enforcement of compulsory education, and the disposition of juvenile truancy and misdemeanors, all find their greatest field of application among children whose discontent at school led to the violation of these laws. Necessity for the wage-earning assistance has been, and is, no doubt, often the cause for many parents' sacrifice of their children's education; nevertheless if the voice of those matured today who were forced to leave school at an early age could be recorded, many thousands would, I feel sure, attribute the former rather than the latter as the real cause of their limited schooling.

The idea that medical science had any relationship to the problems of public school life was not entertained prior to the great awakening in preventive medicine during the epoch 1880–90. During this remarkable period Robert Koch discovered the bacillus of tuberculosis; Eberth, the organism of typhoid fever; Klebs and Loeffler, the bacillus of diphtheria; Lavaran, that malaria was transmitted by mosquitoes; Fehleisen, the streptococcus of erysipelas; Kitasarto, the bacillus of tetanus—all discoveries that transferred tuberculosis from the class of diseases supposed to be inherited, and placed it in the category of diseases preventable and curable; that proved diphtheria to be a specific, communicable disease, and not a filth disease; that suggested that skin affections may be contagious, that lockjaw may be epidemic; and that night air is as healthful and as free from disease as day air.

In such a renaissance it was but natural that attention should center upon those affections which for ages had been known to be communicable and most prevalent at the earlier periods of childhood. The legal authority to carry out such an investigation was the board of health; the most likely place to find the facts was in the aggregation of children in school. Thus originated the first scientific basis for medical inspection of schools. This was at Boston, Massachusetts, in 1892.

The relationship of public-school life to medical science since this introduction of medical inspection is one of interesting evolution. First came the movement to prevent the schools from becoming centers of infectious or contagious diseases; then followed the attention to such hygienic problems as schoolroom environment, proper seating of the children, the lighting, heating, and ventilation of school buildings; next came the examination of each school child in order to ascertain his physical asset for the life mapped out for him and the removal of remediable causes of handicap or a modification in the school program and extra school life of the child in order to avoid possible shipwreck. This was followed by the scientific study of the development of great groups of children in order to obtain accurate data of their physical and mental growth, so that the factors of heredity, age, sex, race, environment, and nutrition might be properly estimated in their bearing on pedagogical progression and racial deterioration. The later stage in this evolutionary process has to do with all those measures tending to the promotion of the physical health and the corresponding growth of the individual child and is embraced in the term "school hygiene." These stages are best considered separately.

I. BOARD OF HEALTH INSPECTION OF SCHOOLS

This was a method inaugurated in this country at Boston, Massachusetts, in 1894, and has been followed more or less closely by the cities in this country and abroad. Briefly, the plan adopted has been as follows: The city is divided into districts and a physician appointed by the board of health has been assigned to each district. These physicians are both agents of the board of health and inspectors of schools. They are all engaged in private practice. They are required to visit each school in their respective districts daily, and to examine all pupils referred to them by the teacher and who in the judgment of the teacher are ill. If any pupil is found to be suffering from any contagious disease, or is otherwise too ill to remain in school, the inspector advises the teacher to send him home for temporary observation by his parents or family physician. The inspector does not prescribe for the child, nor advise or criticize anything beyond that which pertains strictly to the isolation of the child, and he carefully avoids any word or act which might be construed as an infringement upon the rights of the family or the attending physician. He is not required to give a diagnosis even. He is concerned more in the protection of the other children at school than in the treatment of the ill child. In his capacity as agent of the board of health, the inspector receives daily all notifications of communicable diseases reported by physicians and he visits the homes of those so reported residing within his district for the purpose of examining the places and plans of isolation adopted by the family. He reports to the board of health his approval or disapproval of such plans, and he visits the patient as often as may be necessary to inform himself of the continuation of the isolation adopted. No case will be discharged from this quarantine until the inspector certifies that recovery is complete and that all danger of contagion has passed. This plan has been modified somewhat by local conditions, and its administration has been effected by the school authority in a few localities.

Medical inspection under board of health supervision prevails at Buffalo, N.Y.; Camden, N.J.; Chicago, Ill.; Des Moines (west side), Ia.; Detroit, Mich.; Elgin, Ill.; Evansville, Ind.; Hartford, Conn.; Kansas City, Mo.; Milwaukee, Wis.; Minneapolis, Minn.; Montclair, N. J.; Newark, N. J.; New Haven, Conn.; New York, N. Y.; Ogden, Utah; Philadelphia, Pa.· Plainfield, N. J.; Providence, R. I.; Salt Lake City, Utah; Syracuse, N. Y.; Washington, D. C.; Waterbury, Conn.; Indianapolis, Ind.; Baltimore, Md.; Cincinnati, Ohio; Mount Holly, N. J.; Cleveland, Ohio; New Orleans, La., as well as in twenty-three cities and forty-seven towns in Massachusetts where medical inspection of schools is a state law. The board of education appoints the inspectors at Ann Arbor, Mich., at Paterson, Atlantic City, Passaic, Englewood, Orange, and Asbury Park, N. J.; as well as in ten cities in Massachusetts. At Grand Rapids, Mich., and at Jersey City, N. J., the medical inspection is done by nurses appointed by the school authorities. A detailed account of the work as carried on in the different cities of this country has been furnished to me by the several superintendents of schools. I desire to thank these officials for their valuable aid and co-operation in compiling these data.

In many cities the system is in an experimental stage; in a few it has been abandoned on account of municipal financial curtailment; in some places its workings have won commendation; while in other places it has been severely criticized even while its adoption has been urged. These criticisms are against the method and means of administration, not against medical inspection *per se*, and have given rise to much confusion. An important fact in the method of medical inspection under the board of health is that the detection of cases of contagious diseases among the children is done by the teacher and not by the medical inspector; if the latter confirms the suspicion of the teacher, the child is excluded from school; if the inspector does not agree with the conclusions of the teacher, the child returns to its classroom. Non-agreement is very frequent, and it requires exceptional perseverance for a teacher to hazard the chagrin of a second mistake, yet disastrous consequences might result from such hesitation. In Boston during the year 1905, 21,111 children were referred to the medical inspectors; 9,241 were found free from any disease. In London between 20 and 30 per cent. of the cases submitted by the teachers were not suffering in any way. The greatest criticism against this system of inspection is that it lacks uniformity; that it excludes pupils and does not provide any means of "follow up," nor any guarantee that the child will receive medical care; that the duties of the inspector as an agent of the Board of Health brings him in contact with much contagion in the homes;

and finally that the dual duties and divided responsibility are not conducive to the best in health and efficiency of school children.

Within recent years medical inspection has widened its scope beyond the detection and isolation of communicable diseases among school children, and has come to include all questions of physical defects and mental backwardness of children. A recent act of the Massachusetts legislature requires cities and towns to provide medical inspection for all pupils in the public schools. The following excerpt indicates the scope of the new law:

> The School Committee of every city and town shall cause every child in the public schools to be separately and carefully tested and examined at least once in every school year to ascertain whether he is suffering from defective sight or hearing or from any other disability or defect tending to prevent his receiving the full benefits of school work or requiring a modification of the school work in order to prevent injury to the child or to secure the best educational results.

There are many causes of ill health and mental dwarfing which are seldom, if ever, acute and requiring immediate inspection. On the contrary, they are detected by their effects on the daily school life of the child, and are not diseases dangerous to the public health. The problem, then, is one of pedagogy pure and simple. The advantage and the necessity for data such as this latter form of inspection alone can furnish is beyond measure. Future progress in physical and mental growth depends almost entirely upon these data.

There are in the United States today not less than 150,000 persons so feeble-minded that institutional care is advisable, yet the latest census gives the number in institutions as 16,500. More than three-tenths (30.2 per cent.) of these have one or more physical defects; 77.2 per cent. of all admissions to institutions for feeble-minded persons occur before twenty years of life have been passed, and the admissions at the ages of fifteen to nineteen years are more than twice as numerous as in the group twenty to twenty-four years. It is important to add here that the percentage of foreign-born inmates is much smaller than among the native white population. If to these figures we add the 17,000 supposedly feeble-minded among the inmates of almshouses, and the 40,000 children in reform schools, we have a population in this country not equaled in any civilized country or age. Almost 11 per cent. (10.9 per cent.) of the insane in this country are physically defective. More than 30 per cent. of the children in the elementary grades in the public schools are over the normal age of the various grades.

Science today has proven conclusively that the blunting of the moral sense has a distinct anatomical or functional stigma which in many cases is removable. Few teachers in cities where attention to defective eyes, throats, and ears has been directed have failed to witness the transformation, mental, physical, and moral, following the correction of refractive errors, the removal of adenoids causing deafness or oxygen starvation and abnormal metabolism.

The extent of physical defects in children may be concluded from the results of the examination of 200,000 children in New York between the ages of five to fifteen years: 60 per cent. were under-nourished; 66 per cent. needed medical and surgical care; 40 per cent. had bad teeth; 38 per cent. had enlarged cervical glands; 31 per cent. had defective vision; and 18 per cent. had enlarged tonsils, while 10 per cent. had adenoids.

It has been estimated from the result of a recent investigation among school children in New York City that there are in this country 12,000,000 children having physical defects more or less serious that should receive attention from parents and family physicians. There is no evidence that the percentage of children suffering from physical defects is any greater today than it was fifty years ago. Medical experience and vital statistics indicate the contrary, and any attempt to charge physical deterioration to the present-day school life must fail from lack of evidence. The only possible exception to this statement is defective vision. Time alone can prove whether all the defects of vision recorded today are permanent.

Thus the problem in relation to physical defects becomes one of prevention and remedy. How can these be accomplished best? The question is plainly whether the inspection of school children is a part of the duty of the board of health in its protection of the general public health, or whether its object is to ascertain and determine the fitness or unfitness of the child for education at school, due regard being given to the nature of the work imposed as well as to the child's capacity and environment. If the detection of infectious diseases among school children is the object and aim, as well as the limitation of medical inspection, few will deny that the agents of the board of health should have exclusive right upon all premises, schools included, and that it is the duty of these agents to exercise preventive measures whether they relate to the child, the school, the home, or the workshop. Any number of foci of infection found and eliminated, however small, justifies the existence of the agencies employed in affording this protection to the individuals; yet the actual number of cases of communicable diseases found among those pupils thought to be ill is surprisingly small, less than 15 per cent. The diseases classified as communicable and coming within the legal scope of the health department are detrimental to the health and efficiency of the child, only so far as they become complicated by possible sequelae. Assuming that teachers are not trained to detect these sequelae, the presence or absence of such complication should form a part of the notification blank which permits the child to return to school after exclusion. The general law requires that the child be free from contagion liable to affect the other children before being permitted to return to school. In some cities it contains the additional statement that "the child has recovered fully" from the disease. If the attending physician or the agent of the board of health would furnish to the schools data of the child's physical condition after an attack of contagious or infectious disease, the necessity for further inspection would be greatly reduced, and the child's health and efficiency would be promoted immeasurably. Today these defects form the basis of the great need of medical inspection in schools. With such information before her, the teacher would have a guide by which the school work of the child could be regulated so as not to aggravate nor cause physical defects.

To summarize, then, the value of medical inspection under boards of health, it can be said:

First, that the inspection has its greatest value as a part of the general preventive duty invested by law in that department;

Second, that 85 per cent. of cases of exclusion from school are due to causes over which the health department has no exclusive jurisdiction.

Third, that no child should be given a certificate of health after an illness demanding exclusion from school until a careful examination has demonstrated that such illness has not left a defect which in all probability will be a hindrance to his health and efficiency.

Fourth, that any defects thus resulting should be made known at the time of his entrance or return to school.

Fifth, that dual responsibilities and duties, as carried out in school inspection under the board of health, must necessarily result in confusion if not inefficiency, and it does not relieve in the least degree the responsibility imposed by law upon school authorities.

Sixth, that something more adequate than board of health inspection is needed to follow up and relieve the results of inspection, and to secure data upon which may be built a rational system of education having for its basis the physical well being of the individual child. This plan I have called

II. MEDICAL SUPERVISION OF SCHOOLS

It was my privilege to point out in an address before the Boston Medical Library Association in February, 1907, the antithesis, "Medical Supervision *versus* Medical Inspection of Public Schools." Since that date the School Committee of Boston has established a department of school hygiene having for its basis such supervision in its broadest sense, a plan which it is believed will make for the greatest health and efficiency in school children.

It is no new theory to assert that mental development without a true physical equivalent is unstable and undesirable; that individuals differ as to capacity and capability of mental acquirement; that the standard of a nation's health depends directly upon the physical state of its children—its future citizens, men and women. Physiology and psychology have for years pointed out the correlation and intimate dependency of mental and physical growth; that race, heredity, age, sex, climate, nutrition, period of growth, season, environment, former diseases, etc., are all factors, often the predominating factors, in deciding the fate of the individual.

Ancient and fixed as these truisms are, modern educational institutions seemed to be indifferent if not oblivious to these lessons. Individuals in large numbers have been sacrificed, races have struggled against deterioration, nations have been heavily burdened. Mental instability and physical degeneracy have vied with each other for the mastery of the being. Crime, depravity, and pauperism have resulted. Legislature and private philanthropy contented itself with ministering to the result rather than toward finding and eliminating the cause. Pedagogues have given the subject scant notice and have been satisfied with the development in the child of the greatest amount of mental strength. This they have considered their special duty. Money, energy, and time have been wasted in trying to make all children equal, in trying to continue a machine-like method of instruction until finally the waste products so clogged the wheels that investigation for the causes became necessary.

The results found were startling. At Copenhagen, 18 per cent. of the boys were sickly on entering school. This percentage rose to 30 after two years of school life and reached 40 per cent. at puberty. Among the girls in the same school the sickness increased from 12 per cent. to 32 per cent. during the first three years of school life, and during the period of twelve to sixteen years the ill outnumbered the well by 10 per cent. In Germany one-fourth of the number of pupils are physically below par; nervousness among children in these schools increases from 10 per cent. in the lower grades to 60 per cent. in the highest grade. The Danish commission found that 29 per cent. of boys and 41 per cent. of girls are sickly. In Sweden the percentage of illness rose from 5 in the first school years to 36 in the second year, and to 40 per cent. in the fourth year. At the thirteenth year of age the curve of sickness was 65 per cent. At Moscow, the percentage of illness at different ages was 58 at ten years, 51 at eleven years, 100 at twelve years, 61 at thirteen years, and 57 at fourteen years. Combe's investigation at Lausanne showed:

Ages	8	9	10	11	12	13	14 years
Boys, per cent. ill	64	43	42	40	33	29	34
Girls, per cent. ill	88	75	60	66	68	61	39

At Rugby School, England, 1,000 boys (thirteen to fifteen years of age) showed 36.5 per cent. under height, 47.1 per cent. below normal weight, 42.3 per cent. below normal chest measurements, 49.1 per cent. of the aggregate cases had acquired deformities, 15.7 per cent. had albumenuria. There are no data bearing on the subject in this country other than that furnished by the 1907 examination of the hearing and the vision of all children in the public schools of Massachusetts: 432,937 children examined; 96,609 (22.3 per cent.) had defective vision; 27,387 (6.3 per cent.) had defective hearing.

Medical inspection as carried on in America has done little to solve the great problems in pedagogy suggested by the above data. In the absence of a standing army with compulsory military service whereby the physical status of the whole population may be learned, it becomes necessary and essential to study closely the advancing army of school children so as to gain that information necessary for healthy development. Nothing can be taken for granted; every problem must be solved rationally; every factor of home life and school life must be weighed carefully and each given its value properly. This requires the co-operation of pedagogue and physician under a different relationship than that prevailing in existing board of health systems of school inspection. The physician should be counselor and adviser to the teachers, school authorities, and home authorities in adjusting the many questions of mental and physical correlation in school curricula. He must be a part of the school system to which the parent and state intrust the child. He should have supervision and control of all those questions having to do with the physical welfare of the school child and the guidance of those means best calculated to accomplish greater health. In this way only can the curative and the preventive as well as the constructive measures of health be fostered and strengthened.

III. DEPARTMENT OF SCHOOL HYGIENE

The Department of School Hygiene established at Boston, Massachusetts, the first in this country, if not in the world, has all these factors. The organization provides for a director of school hygiene, three assistant directors, as many special instructors in physical training, special assistant instructors in physical training, instructors of athletics, and assistant instructors of athletics, supervisors of playgrounds, playground teachers, heads of playgrounds, helpers in playgrounds, and helpers in sand gardens, as the board may from time to time authorize; a supervising nurse and assistant nurses; an instructor of military drill; and a medical inspector of special classes. The director of school hygiene shall have general supervision and control of all matters affecting the physical welfare of pupils and teachers; of medical inspection, except that under the control of the Board of Health; of school nursing; of physical training, military drill, athletics, sports, games, and play engaged in by pupils or conducted in buildings, yards and grounds under the control of the board, or in other buildings, yards, and grounds that it may have the right to use for such purposes. In the normal school, the health of the pupil-teachers is under personal supervision of the director, who is a physician. Here as well as in the high schools a gymnasium is equipped and special teachers are provided for instruction and the physical examination of the girls. Military drill is provided for the boys. Both courses are compulsory. All high-school pupils, boys and girls, are compelled to take a setting-up drill of ten minutes' duration each day. This is given by room captains selected for the purpose. In the elementary schools and in the primary schools, calisthenics and drills in the classroom and corridors are given by the teacher under supervision of the assistant director.

From the kindergarten to the normal school one principle is emphasized—namely, that proper breathing, proper standing, and proper carriage are the three essentials of all physical training. These essentials are taught and enforced in the schoolrooms in every movement of the child, and not left to gymnasium or calisthenic periods or military-drill periods alone. Instructors in athletics have a rating and a certification similar to regular teachers, and after written and practical examination. Selected teachers in the elementary schools act as play-teachers for the children of these schools after hours daily, and on Saturdays and holidays, extra compensation being allowed for this work.

School yards in crowded districts are being equipped with suitable apparatus for playgrounds for younger children. The season is to run from May 1 to November 25; matrons, janitors, and teachers are furnished by this department. On large playgrounds belonging to the Park Department, as well as at the public baths, arrangements are made whereby instruction in athletics, swimming, games, and play may be carried on under school supervision, thus offering the best means to make these activities a source of better health to all the children rather than a spectacular exhibition by the few. A specific appropriation amounting to more than $50,000 annually is provided for these purposes by legislative act. This appropriation cannot be used for any other purpose.

The nursing division of the department is under the direction of one supervising nurse who has at present thirty-four assistants. The division is provided for by an additional special appropriation of $25,000 annually. Rooms are equipped at schools in each district, and each nurse has an assignment of approximately 2,700 pupils. These nurses are appointed from a certified list similar to that of other employees in the service. The following report of the first twenty nurses appointed under this department for the period September 11, 1907, to February 1, 1908, shows the work possible under this adjunct to health and efficiency:

Diseases of: Ear, 1,492 cases cared for; *Eye,* 6,078 cases cared for, including 3,649 suffering from defective vision; of these 1,131 were corrected by oculists; *Nose,* 2,602 cases, of which 1,405 had adenoids, 423 of whom had the obstruction removed; *Mouth,* 1,765 cases including 1,686 who had carious teeth; *Throat,* 1,695 cases, including 683 of hypertrophied tonsils, and 608 of tonsilitis; *Skin,* 10,139 cases, all of which were followed to their homes and the parent or guardian instructed how to care for the same.

In addition to the above 2,563 pupils having abrasions and wounds received 9,144 dressings; 2,034 miscellaneous affections, including 350 septic wounds, 312 suffering from renal disease, 121 having rachitis, 207 suffering from malnutrition, 227 with epilepsy, 126 with chorea, and 548 with bronchitis, anaemia, and heart disease were treated; 3,120 excluded pupils were followed to their homes; 3,293 were taken to family physicians, resulting in 3,202 being cured and returned to school at the minimum of absenteeism; 4,772 were taken to hospitals on request of parents; and 3,223 of these were cured and returned to school; 7,559 home visits were made for the purpose of instructing or advising parents concerning the children, or in order to persuade the parents to seek proper medical or surgical aid for the child. There were also 2,882 affections looked after of which there is no classification. These do not include the specific infectious diseases.

The nurses are not permitted to visit homes of contagious diseases. The great advantage of having a nurse under the school jurisdiction who may look after the minor ailments in school life and who visits the homes of children, giving advice and assistance to mothers, and in harmonizing the fixed customs and traditions of a great alien population with our habits and standards of living is solving many vexatious problems of the past and forms a link between the school and the home not possible by any other means. It does not seem possible to conceive a more satisfactory arrangement nor a more effective piece of school machinery than nurses under school supervision. With a corps of medical inspectors under this same supervision, who would conduct a daily clinic in their respective school districts, there are no problems connected with the health and efficiency of school children which could not be quietly, rationally, economically, and effectually solved. Until such an organization is perfected in part or in whole, little progress can result from the efforts to promote the health and efficiency of our school children.

DISCUSSION

E. C. Moore, superintendent of schools, Los Angeles, Cal.—A health program is needed for all schools. For years our ideal of education has been wrong. It must be not a sound mind in a sound body, but a sound mind making and keeping its body sound. The mind in control in the school, and the minds being trained there, must make and keep the bodies of the students sound. There is no other way. As Dr. Allen has put it: "When the state for its own protection compels a child to go to school it pledges itself not to injure itself by injuring the child."

Shall the board of health or the board of education undertake this work? A part of it must be done by the board of health. Combating contagious diseases falls naturally within its province. School funds should not be used for that purpose, but the best health officer is one who is present all the time and ever-watchful of the welfare of the child. That ever-present health officer is the teacher. She must in the main be the guardian of conditions to see that they are hygienic and she must develop the cardinal physical virtues of breathing, sitting, standing, and walking properly.

There are other conditions which immediately affect school work which she may detect but which she cannot of herself remedy. Some of them are caused by the schools. All of them affect school work and in the very degree in which they obtain they render school work impossible. For this reason it belongs to the schools to do all in their power to remedy them. In so doing they are treading on the well-established preserves of the physician, and the physician is apt to regard their encroachment with distrust and concern. The situation is a delicate one. A line must be drawn between what school authorities may undertake and what properly belongs to the province of the medical profession. I believe that it is a safe principle to lay down that the schools must not undertake to do what other social institutions, the home, the hospital, the clinic, the settlement, the medical profession, stand ready to do and can do perhaps better than the schools.

It may be easier to hire a surgeon to do the operative surgery that should be done to give a certain number of pupils their chance, but I am convinced that it is better to employ the agencies already existing to get the work done.

This principle would limit the medical work of the schools to inspection and even that must, it seems to me, be limited and of a superficial sort. Certain defects go uncared for because their presence is unknown. In every schoolroom some of the pupils cannot see well, cannot hear well, cannot breathe properly, have uncared-for teeth, or irregular heart action. If parents but knew of these conditions, they would in most cases see to it that they are remedied and if they will not on their own initiative, they can be persuaded or coerced to have them cared for. The program of medical inspection with which I am familiar aims to concern itself with defective eyesight, defective hearing, defective teeth, defective breathing, and defective heart action. It is in the charge of a health laboratory with a director and three assistant physicians. With this laboratory the teachers of the schools co-operate. It is the duty of each class teacher to test as carefully as possible the eyesight and hearing of the pupils in her class. The physician in charge of eye-examining tells me that the teachers make the preliminary tests in a very satisfactory manner.

All the more difficult cases are sent to the laboratory for examination and all the examinations which the teachers make are under the direction of the laboratory staff. Reports of all examinations which show conditions which need care are sent to the parents with urgent recommendations that the case be taken up with a specialist or with the family physician. There is a follow-up system to see that the proper steps have been taken.

MISS SADIE AMERICAN, executive secretary, Council of Jewish Women, New York City (founder of Vacation Schools in Chicago, Ill.).—There is one point that I specially desire to emphasize. It is the necessity for providing more fully for our girls, in play, in athletics, and in vocational or industrial training. Not sufficient regard has been paid to the girls, not sufficient careful study has been given to conditions and to their needs. Those of you who have had anything to do with reformatories for girls must know the appalling number of girls between the ages of ten and sixteen who are in such institutions. It is my firm belief that many of them are there because of the insufficient provision for play, for physical activity, for amusement, if you will, for desires perfectly legitimate, but which have not been satisfied. If we properly provide for our girls the dance halls will not be filled and the well-known consequences of the dance hall may be lessened.

A second point that I desire to make is the necessity for educating the parents. A friend of mine—a teacher—recently showed me the following note: "Dear m'am. I don't want Mary to spend her time in no dancing. If I want her to jump I can make her jump myself." This is typical of the attitude of many more highly educated than was this mother whose Mary would probably have learned to dance in some less favorable place. Along the line of Dr. Gulick's paper another experience comes to my mind of an educated mother who resented her child being sent home from school with a note advising that the adenoids be removed. She felt that she knew what was good for her child and did not wish to be interfered with. We have much to do not only to secure proper medical inspection and the school nurse, but to make parents of all groups and grades understand the intent and the need and the meaning of such innovations as medical care of school children and as play.

A third point is that we need *school playgrounds*, no matter whether there be municipal playgrounds or park playgrounds or settlement playgrounds. We need these playgrounds out of doors next to the school if we can have them, and if not, then in the basement, or on the roof, or wherever else it is possible, for not until we learn to associate in the mind of the child the school with his play, will we have less of a truant problem. The school should be the center of the life of the child, next to the home, with which he associates his joys and his pleasures as well as his work. Alas, in the tenement districts, to many it must be instead of the home. But when he does associate the school with his play and with his work of the hand as well as of the head, the school will become the influence and the lasting influence which it should be.

And finally let me say that we have passed the theoretic stage in regard to the effect of work with the hand in addition to and in connection with work for the mind, whether we call this industrial training or vocational training or manual training.

The vacation schools of Chicago have proven that such hand work holds the children purely by their desire to come, and the police of that city testify that juvenile arrests are at least one-third less in the districts in which there are vacation schools, than they were in these districts when there were no such schools. Juvenile arrests, I say, and not juvenile crime, for there is great difference between them, and that which is called mischief in the home of the well-to-do and where there are larger spaces for play may be interference with law or ordinance and cause arrest and send a boy—yes, shove a boy—along the criminal path.

ADDRESS AT THE RECEPTION AT THE WHITE HOUSE

PRESIDENT THEODORE ROOSEVELT

[*Stenographic Report*]

Gentlemen and Ladies:

Of all the bodies of citizens that I have received here at the White House, there is none which occupies a more important relation than yours. I am tempted to say none has come that has occupied as important a relation to the nation, because you men and women who deal with education, who represent the great American policy of education for all children, provided by the public as the prime duty of the public, bear a relation to the family, a relation to the future of our whole people, such as no other like number of individuals can bear. I own six of the children that you educate, and I am prepared to extend cordial sympathy to some of you.

Seriously, friends, it is idle for any man to talk of despairing of the future of this country, or feeling unduly alarmed about it, if he will come in contact with you here, and with the forces that you represent. Fundamentally this country is sound morally, no less than physically. Fundamentally, in its family life, and in the outside activities of its individuals, the country is better, and not worse, than it formerly was. This does not mean that we are to be excused if we fail to war against rottenness and corruption; if we fail to contend effectively with the forces of evil; and they waste their time who ask me to withhold my hand from dealing therewith. But it is worth while to smite the wrong for the very reason that we are confident that the right will ultimately prevail. You who are training the next generation are training this country as it is to be a decade or two hence; and, while your work in training the intellect is great, it is not as great as your work in training character. More than anything else, I want to see the public school turn out the boy and the girl who, when man and woman, will add to the sum of good citizenship of the nation. It is not my province, nor would it be within my capacity, to speak about your pedagogic problems. You yourselves are far better able to discuss them. But, as a layman, let me say one or two things about your work.

In the first place, I trust that, more and more, our people will see to it that the schools train toward and not away from the farm and the workshop. We have spoken a great deal about the dignity of labor in this country, but we have not acted up to our spoken words, for in our education we have tended to proceed upon the assumption that the educated man was to be educated away from and not toward labor. The great nations of mediaeval times who left such marvelous works of architecture and art behind them were able to do so because they educated alike the brain and hand of the craftsman. We, too, in our turn, must show that we understand the law which decrees that a people which loses physical address invariably deteriorates, so that our people shall understand that the good carpenter, the good blacksmith, the good mechanic, the good farmer, really do fill the most important positions in our land, and that it is an evil thing for them and for the nation to have their sons and daughters forsake the work which, if well and efficiently performed, means more than any other work for our people as a whole. One thing that I would like to have you teach your pupils is that whether you call the money gained salary or wages does not make any real difference, and that if, by working hard with your hands, you get more than if you work with your head only, it does not atone for it to call the smaller amount salary.

The term, "dignity of labor," implies that manual labor is as dignified as mental labor; as of course it is. Indeed, the highest kind of labor is that which makes demands upon the qualities of both head and hand, of heart, brain, and body. Physical prowess, physical address, are necessities; they stand on a level with intellect, and only below character. Let us show that we regard the position of the man who works with his hands as being ordinarily and in good faith as important and dignified and as worthy of consideration as that of business men or professional men. We need to have a certain readjustment of values in this country, which must primarily come through the efforts of just you men and women here and the men and women like you thruout this land.

I would not have you preach an impossible ideal; for if you preach an ideal that is impossible you tend to make your pupils believe that no ideals are possible, and therefore, you tend to do them that worst of wrongs—to teach them to divorce preaching from practice, to divorce the ideal that they in the abstract admire from the practical good after which they strive. Teach the boy and girl that their business is to earn their own livelihood; teach the boy that he is to be the homemaker; the girl that she must ultimately be the homekeeper; that the work of the father is to be the bread-winner, and that of the mother the housekeeper; that their work is the most important work by far in all the land; that the work of the statesman, the writer, the captain of industry, and all the rest, is conditioned—first, upon the work that finds its expression in the family, that supports the family. So teach the boy that he is to be expected to earn his own livelihood; that it is a shame and scandal for him not to be self-dependent, not to be able to hold his own in the rough work of actual life. Teach the girl that so far from its being her duty to try to avoid all labor, all effort, that it should be a matter of pride to her to be as good a housewife as her mother was before her. Sometimes the kindest and most well-meaning mother, sometimes a kind and well-meaning father also, do as much damage to the children as the most thoughtless and selfish parent could, by bringing them up to feel that the goal of their attainment should be the absence of effort instead of effort well directed. We have all of us often heard some good but unwise woman say, "I have worked hard; my daughter shan't work;" the poor woman not realizing that great tho the curse of mere drudgery, of overwork, is, that it is not so great as the curse of vapid idleness;

and it does not make any difference whether the idleness is that of the hobo at one end of the scale or the gilded youth at the other. Do not waste time in envying the idler at either end of the social scale. Envy is not the proper attitude toward them. The proper attitude toward them is a good-humored but thorogoing disapproval of the man or woman who is so blind not only to the interests of society as a whole, but to his or her own real interests, as to believe that anything permanent can be gained from a life of selfish and vacuous idleness. Such idleness is the poorest investment in the long run that can be imagined; and there is no surer way to forfeit all chance of real happiness than to set deliberately to work to treat pleasure as the only aim after which to strive. Teach the boy and girl to work; teach them that their proper duty is in the home; their duty to one another and toward their neighbors. Then teach them more; teach them to build upon this as a foundation the superstructure of the higher life. I want to see our education directed more and more toward training boys and girls back to the farm and the shop, so that they will be first-rate farmers, first-rate mechanics, fit to work with the head and to work with the hands; and realizing that work with the hands is just as honorable as work with the head. In addition I want to see a training that will make every boy, every girl, leaving the public schools, leaving the schools of the nation, feel impelled so to carry himself or herself that the net result, when his or her life has been lived, shall be an addition to the sum total of decent living and achievement for the nation; and have them understand that they are never going to amount to much in the big things if they don't first amount to something in the little things.

The effort should be made to teach everyone that the first requisite of good citizenship is doing the duties that are near at hand. But, of course, this does not excuse a man from doing the other duties, too. It is no excuse if a man neglects his political duties to say that he is a good husband and father, still less is it an excuse if he is guilty of corruption in politics or business to say that his home life is all right. He ought to add to decency in home life decency in politics, decency in public life.

So my plea is not that the homely duties are all sufficient, but that they are a necessary base upon which to build the superstructure of the higher life. Our children should be trained to do the homely duties in the first place, and then, in addition, to have it in them so to carry themselves that we collectively may well and fitly perform the great and responsible tasks of American citizenship.

DESIRABLE UNIFORMITY AND DIVERSITY IN AMERICAN EDUCATION

ANDREW S. DRAPER, COMMISSIONER OF EDUCATION OF THE STATE OF NEW YORK, ALBANY, N. Y.

Mr. President, Ladies and Gentlemen:

I can scarcely begin without mention of the fact that my entrance into the affairs of the National Educational Association was twenty years ago, in this month, in this department, and in this city. It was the beginning of personal, professional, and official relations which have been a constant satisfaction to me. I had the temerity to present a paper on determining the qualifications of teachers. It took ground for state regulation, for the subordination of local methods to a state system which would at least protect every district against the relatives, and dependents, and supporters, and adherents, of school officials, unless they could pass examinations and teach; but it stood for the freedom of all who could stand up among men and women and exercise freedom without harm. If anyone should recall that it was a bit crude, he will at least do me the favor of remembering that the speaker was then very young. Crude or not, it started an intellectual and pedagogical ruction in the department. But what provided the basis for a very earnest discussion then is everywhere accepted now, unless it be in isolated sections which I lack the hardihood or the courage to mention.

The next year at Nashville I became president of the department. The record sets forth that sixteen votes were thrown for me, that fourteen went for Mr. Moffett of Alabama, that there were eight scattering, and that an open resolution, without a ballot, was required to effectuate my election. Mr. Moffett was considerate enough to join in the conclusion very heartily, and I held the office. The next year, with a much larger attendance, I was continued with every expression of unanimity, and the New York and Philadelphia meetings of the department are among the grateful memories of my association with the doings of the schools. I should therefore be false to much that I cherish, and I should attain the heights of ingratitude, if I were not to respond heartily to your invitation to present this address.

GROWING UNIFORMITY

In the last twenty years the growth of uniformity in the plans and policies of the schools has been marked. We all know the reasons. In part they are internal and in part external. We are good travelers and great readers. We are all moved by the same ambitions. We would have as efficient and progressive schools as any people. We are moved by the very uniform, and certainly the almost universal, advances in the thinking and the doing of the country. We have gained in bigness and in weight, and the inertia which oppressed us before there was a great ball to roll has given place to the new difficulty of safely applying the tremendous energy of a mighty ball in motion. Rejecting the attitude of a wise old man apprehensive about something new, and without pessimism, of which I have not a grain, I am going to query, tonight, whether our information is not more general than our discrimination in its applications, whether the diversity in our situations ought not to play a freer part in the determination of our policies, and whether we ought not even to be upon our guard against a uniformity of educational organization which may either overreach or fall short of the educational need of imperative situations. And, notwithstanding the difficulty of the task, I am going to try to reason out and lay down some propositions upon which we may stand concerning desirable uniformity in the logic, and diversity in the instrumentalities, of American education.

ILLUSTRATIONS IN UNIFORMITY

A dozen years ago the president of the University of Illinois had some small part in securing the appropriations for a fine new library building, and then indulged in some pardonable reflections about where it should stand. It was his first experience in the matter of placing buildings in Illinois. He reasoned that it might well be placed so that it would "quarter" a little upon the course of the sun, so that the rather plain stack-rooms in the rear might be as unobtrusive as possible, and so that the front, when taken in connection with other buildings, might present a sort of crescent to the main entrances to the grounds, and add a little oneness and warmth of feeling to what the architects call "the ensemble." He figured it out, had the plat staked out on the exact ground where all this might be accomplished, and made it all very graphic by causing ropes to be strung around the stakes, so that none could lose the effect. He procured the governor to come and look, and the great head of the state said that it was "good." He led the Board of Trustees to the scene and exploited to them the sentimental magnificence of the prospect. He could not fail to observe that they appeared to have some latent doubts about the matter, but he noted with satisfaction equal to his appreciation of their goodness that their skepticism was suppressed by their consideration for himself. Returning to the council chamber, they too, in formal resolution, pronounced it all "good." Then at high noon of the next day there was an alumni feast which was attended by revelry and mirth and much freedom of talk. In the midst of the hilarity one unsubmissive unregenerate got up and said only this and nothing more: "Before the trustees break ground for that library building, it is to be hoped that they will have sense enough to pull it around square with the world;" and the uproarious acclaim which he evoked drove the information into the soul of the president that his ambitions and ideals about landscape gardening and architectural effect were being quickly prepared for a peace offering to the Illinois reverence for the cardinal points of the Illinois compass. His later information was correct. The ceremony was marked by sympathy for the sacrifice, but by entire firmness and determination; and that building stands upon an exact east and west line with its beautiful face squarely turned toward the mathematical but evasive great north pole, with what seems to me a serious and worried look because the curvature of the earth defeats its eternal effort.

Yet it was well. It is seldom that anything in which we are interested is as important as it seems to us at the time. It was better that the building should conform to common and harmless thought, than that it should for all time be obliged to encounter the universal standards of its owners about the fitness of things.

There are some things that are not likely to be changed. The highways of New England will always follow the streams, seek the easy grades, wind about the mountains, and be grateful for the woods; no matter how long, or how crooked, or how heavy, the road may be. The highways of the prairies will always be as straight as an arrow, exactly a mile apart, both north and south and east and west, and they will never get in conflict with magnetism nor with mathematics. But in each case they advance on lines of least resistance, and adjust the advantages of the situation to the uses of the people. There are usages or whims, as well as mountains and streams, which cannot be changed. In the cemeteries about my New York home the graves are laid with reference to the size of the lot, and the trees that are upon it, and the number who are to occupy it, and without much thought of where the sun rises; but about my Illinois home the dead are laid on east and west lines, with the head to the west, so that when the trump of the archangel shall sound, the sleeper shall look to the east upon rising, lose no time in the bewilderment of turning around, and suffer no prejudice in the preferences of the eternal kingdom. It is better to conform to it than to be distressed by futile attempts to reform it. Preaching is a good thing, but much of it is wasted because irrational, unspiritual, or aimed at the unchangeable. Uniformity is often a good thing, but it will find its match in the manufactures of Connecticut. Multiformity is often a good thing, but diversified agriculture will not stir enthusiasm among the wheat growers of Minnesota and the eastern Dakotas, the corn growers of Illinois and Iowa, or the cotton growers of Georgia and Alabama.

Ignorance is unpardonable. Information comes easily. But what is well depends upon conditions. Reason must deal with facts. Policies must adapt themselves to situations. No matter how informed one may be about a movement which has somewhere been successful, no matter how contagious is his enthusiasm, no matter how good the motive; it is all wasted if the thing cannot go where it is to be tried, or if it must cost in one way or another more than it can come to. If time is of no value, if energy is not occupied, if novices or geniuses are only wandering in intellectual forests and wondering about game, there is no harm: there may be possible good. But seasoned and intensive lives cannot wait upon mere possibilities; certainly not upon those that are too remote. Even discovery and invention have come from lives that were balanced and intense, that evolved theories that were rational, and that followed probabilities that were at least within the realm of realization. And no matter how much we owe to research, to discovery, or to invention, the world's work has been borne and the world's advance has been made by men and women who are able to see *what may be done*, and who have the force and the discrimination which can do it.

NO OBSTACLES TO EDUCATION

Education comes pretty near being the American universal passion. All the people believe in it. If that is not literally true it is so near it that no one can disbelieve in it without ostracism. If one is indifferent to it, it is because he is a mental toper or an intellectual degenerate. All the people believe in all the people having all they will take of it. If there is one who does not it is because he is un-American, out of sympathy with the fundamental philosophy of the nation. All the people believe in all kinds of education for all the people. That belief stirs some troubles of its own. Some do not stop to think whether the kind of education will go in a particular place, whether it will profit a particular people, whether it will make misfits or whether it may break the intellectual and industrial equilibrium of the country, and therefore impair the individual happiness and the moral and economic strength of the nation.

Now do not infer too quickly that the speaker may be lost in some sort of a wilderness, may have become blinded to the lights of a lifetime by some stupefying and profane influences. Every boy and girl, every man and woman, in America, is to have the utmost of educational opportunity that the country, having regard to the national unity and the rights of all, can provide. Everyone is to be helped to the attainment of any distinct purpose which he may acquire. Everyone is to be given aid in forming his purposes, and cheer on the road to their realization. We are in no danger of ever thinking that lowly birth may be an obstacle to intellectual greatness. We shall be nearer right in thinking that high birth is a greater obstacle. We shall never think that one kind of training is good for one class, and that the people in another class are not to be allowed to partake of it; or that there is another kind of education which is suited to one class, and that none in another class can ever want anything to do with it. The suggestion is so repugnant to the thinking of the country that it merits neither refutation nor consideration. The democracy, the very atmosphere of America dissolves social sets, redistributes professional and business inheritances, and intermingles the wealthier and the working classes, very quickly. The boy of poor parents has about as good a chance as any other boy to be the rich man of tomorrow: the child of the wage-earner has as much prospect of intellectual conspicuity or commanding influence in the next generation as has the child of the president of a university, or the president of the nation. Indeed, we carry our philosophy to such an extreme that it often puts an undue handicap upon the child of momentary prosperity. Fortunes in lands and securities, and in mental acquisition and in political preferment as well, are not much transmitted, or they are so much divided in the transmission, or are so dissipated by the inheritors, that they count but little. The exceptional legatee has burdens and troubles of his own.

Not much but work counts. It may be by the hand, it may be mental, it may be moral. It counts most if it embraces all. It must be adapted to qualities and environment. It must reckon with conditions and possibilities. It must be incessant, sustained, disciplined, progressive. The worker must regard other workers: the work must articulate with other work. There must be ideals, but they must be rational. It matters little what the work is, if it is of a kind which the world wants done, and if the one who undertakes it really does it. It matters much if it is of no account, or if the one who undertakes it has no habit of taking care, no interest in the process, no pride in the finished product. If it is well done, no matter what it is, the world will appreciate the work and regard the man who does it. And more than by inheritance, more than by situation, more than by favor or by chance, the qualities and the worth of the man are determined by the measure and the fineness of his work.

The efficiency of the worker, the fineness of the work, the consequent worth of the work to the country, and the reflex influence of the work upon the worker, turn very largely upon the free and natural, rather than upon the constrained, selection of work by the worker. To assure the results which are desirable he must choose for himself. Of course he must have incentives and inspirations; of course he must have lights and opportunities; but he must be left to his internal inclinations, tastes, and gifts, as well as to his external inspirations and opportunities, to choose the work which he wants to do, if there is to be much promise that he will do it well enough to be happy in the doing of it, and thus make it of some account to other people and therefore of more account to himself.

I make bold to raise the query whether the educational system of America has not had an overwhelming trend which has taken away much of the freedom of choice and naturalness of selection which are necessary to the best individual and public results from the adaptation of people to work. I suggest a question as to whether we do not have an abnormal, indeed an alarming, number of misfits between workers and work. It might not be amiss to go even farther and raise a question as to whether there is not something in the common thought and common ambitions of the country, and as a consequence something in the prevalent theories and plans of the schools, which actually leaves us with great quantities of work to do which goes undone, and also with great numbers of men and women who are not doing what they might do, and not doing much of anything anyway, when the very unfolding of their humanity depends upon the number of those who do tiring and productive work.

Perhaps the difficulty, if there is a difficulty, may be expressed more clearly, and possibly a remedy may be signified, in this way. There are great, powerful, and productive nations where the overwhelming and successful policy is to keep the masses down. The laws are so made, the professions so guarded, the expression of political opinion so obstructed, the political assemblies so unrepresentative, and the social classes so incrusted and segregated, that the door of opportunity is practically or completely closed to a child of the people. The thing is definitely fixed and steadfastly maintained in a way which will enable the few, and their children for indefinite generations, to enjoy privileges which they never earned, thru the political subordination and the physical labor of the multitude. We hold all that in abhorrence in this country. Our political fathers, no matter where our natural parents lived, determined that any law or usage which affected or continued such conditions must go down wherever the flag of the Union should signify the thought of the nation. We have not departed from the attitude of our fathers. We have worked out their philosophy in a largeness of fact and thru a wilderness of difficulties of which they never had the slightest expectation or conception. We are now committed to that philosophy, not only because it was the philosophy of the fathers, but because it has gained strength thru the difficulties it has experienced, and shown its beneficence thru its practical applications. We have undoubting confidence that we have the brains and whatever physical strength may be necessary to work it out completely, no matter how wide the territory over which the flag floats and no matter how many or how diverse the people who live beneath its beautiful folds. And we surrender no tithe of all this when we raise the question whether, in the severity of our determination to avoid the subordination of the many to the few in other lands, we have not gone too far toward the other extreme and advanced conceptions which, acting upon the susceptible and ambitious temperament of the people of the United States, have led too many to think that they can succeed by wits without work, and can manage the business of other people before there is evidence that they are able to manage their own.

In our rhetoric and declamation every American is a king. This is idealistic but very often it is misunderstood. For any practical end it lacks the necessary discrimination between kings and between people. On the whole, it must be admitted that the kings have been rather a poor lot, and on the whole it must be said, if we say anything about it, that we have plenty of people who are kingly in that sense alone. In the theory, the intent, and the outworking of our pure democracy, every man stands equal with every other man in the making and the protection of the law. But that is far from all. The rest depends upon himself. As to the rest, he is unequal with other men. And the rest is largely in liquid state until it is given form and consistency in the schools.

The schools are filled with fallacies. The boys are pointed to the millionaires, to the inventors and discoverers, to presidents of banks and railroads, to military and naval heroes, and to the presidency of the nation. One who lacks ambition for these places is deemed to be hardly worth the counting. Ambition, training in the culturing studies, wits, and luck are thought to be the stairs to eminence and glory. Yet the men who have reached altitudes by such means are rare in the extreme, and with rare exceptions they have been unsubstantial and unreliable when they got there. The men who have attained eminence and held it securely have been hard, severe, long-continued, uncomplaining, and unrelenting workers. The sign boards at the cross-roads in the courses of the schools have pointed the boys to professional occupations. The road to these seems easy to a boy, and it is a rare boy who will not choose the easier thing. Yet, as a good friend, a natural lawyer, an honored judge, and a senator of the United States, wrote in my autograph album when I was a law student, "The successful lawyer, above almost all other men, must earn his bread in the sweat of his brow." The physician who is not a systematic, joyous, seasoned laborer is a dangerous character to have about your house. It is so with clergymen and engineers and bankers and merchants and all the rest who make any real impression upon life.

The schools not only overlook or undervalue the processes which are essential to any success worth talking about in commercial, professional, and political life, but they are exceedingly undiscriminating about the situations in life which are of most account to the particular liver, as well as about the studies and processes and the hard labor by which they are to be reached. The man who has a craft, and comes somewhere near being the master of it, is to be envied in comparison with the man who has got into a bank or a printing office and cannot get to the fore in it. And the man who has developed a farm, with all of its interesting and inspiring attributes, is a veritable king when compared with those who have taken rooms in the basements of the professions. Neither the successful craftsman nor the efficient farmer has to ask special favors. Both grow balanced and hardy thru the demands and the limitations of their work, and both are doing work which the world has to have. Both are as independent as need be, and independence makes for influence and respect in the common life.

But the control and direction of children have been much relaxed, and we have had a pretty hard attack of something which has attacked educational values, rejected known roads, indulged in novel speculations which can neither be demonstrated nor disproved, which points to everything and gets nowhere.

The trouble with the schools, certainly the lower schools (and there is trouble with the lower schools, at least) is that they lack definite aims, unless they are aims which ought not to appeal to more than a moiety of the people. They do not train into the child the habit of taking extreme care, and they do not demand clearness of process and completeness of result. They do not sufficiently recognize the imperative demands of labor and exactness as the essential basis of a national system of education. So much must come first, in any event, and after that there may be free choice when the child is old enough to make a choice. There is not only the lack of the essential foundation, but also of the opportunity for the subsequent free choice. The overwhelming influences of the schools are all in the direction of a superficial culture, altho sustained and successful work is the instrument of all true culture;

and of professional and managing vocations, altho the places are over-full. Children have to leave the schools to escape their trend. If they do not leave for that purpose, they certainly do leave because it is not made worth while for them to stay. But one-third of the children in the elementary schools continue to the end. Only a part of these go to the high schools, only one-third of those who go to the high schools remain beyond the second year, and only one-sixth to one-tenth of those who go continue to their graduation. All the rest drop out along the way, because the need of the children's help to earn the family support is pressing and because they think that it is more to their advantage to have their children leave school than to remain.

It is not saying that a child should not have his free choice in determining what he shall do; nor is it implying that he shall not be helped to any opportunity for which he wants to try, to say that there is exclusiveness and repression in such a situation, and that in the outworking of our democracy in our education the forcing of children to such an alternative as that must disappear.

Freedom of choice does not imply that all our children shall have a literary or professional training; it does not demand that in all parts of the country there must be the same kind or the same grade of schools; it does not demand that in its name children shall be guided into vocations that are overstocked, or for which they are not adapted; it does not demand, most certainly, that children shall be led into vocations that misfit them, or given the alternative of going without training for a vocation which they might want, and which it would be profitable for the country for them to have. The demand of our democracy is for equality of opportunity. We have gone too far or we have not gone far enough. We cannot avoid the question. We cannot escape the attitude of the Constitution: but perhaps we may understand it more perfectly. The demand of the economic situation and of common justice, that there shall be schools suited to the needs of all people and leading to all manner of vocations, will have to be heeded.

The fact is that we men and women of the schools keep close track of one another. The news of the schools is all printed and we read it. We travel a great deal. We each undertake to keep up with all the rest. The discussions have all been of the same general character, and the projections have all been in one general direction. We have each added whatever subjects of a culturing curriculum the people would stand, and brought in all the incidental novelties the conventions could suggest. The school boards have been almost paralyzed. Obstacles to education are not allowed in this country; but may not some obstacles to some education in some places be healthful? There has been skepticism, but no one has felt just confidence enough in his skepticism to say bluntly, "Pull that building around square with the world before we go any farther about it."

SCHOOLS TO SUIT CONDITIONS

We are eternally conforming and standardizing. What we want is not schools that are alike, but principles that are fundamental and schools as diverse as the conditions are. Of course, all schools must have standards, but they must be standards of sense, standards of character, standards of information, and not standard or uniform courses, or uniform methods, for all the schools of a state or of the country. The universal comparisons between state systems and between city systems, and the universal effort to have as good as any other state or city has lead to results which are as remote as can be imagined from the needs of the greater part of the constituencies of the schools. What is needed is to bring the teacher and the parents and the children near enough together to make it possible for them to understand the needs and make the most of the possibilities of one another.

For years the tendency of one enthusiast after another in the community has put more and more upon the schools. There are societies to effect everything that ever developed in a dream, and an average school superintendent or an ordinary school board is a weak defense against the onset of a society of enthusiasts, particularly of women enthusiasts. Politeness and platitudes have to suffice, where policemen and fortifications are necessary. Newspapers agitate, just as a matter of "newspaper policy," which means a policy which will sell more papers. A mere sentiment comes to be a cause of the people, and that which confuses and takes from the concentration and efficiency of the schools gains a place in their curricula.

Authorship and the publishing business play a part in the multiplicity of studies, and a worse part in prolonging and attenuating studies beyond their right. The school life of the child is within limits of age. It is none too long. It is precious time. Whatever takes more than its right subtracts just so much from something else that is vital to the rounding-out of the child's life to its utmost. Whatever does not give him added power to do makes for insipidity and saps his strength. Say all we will, and say it truly, about a child needing a complex education to fit him for life in a complex civilization, the fact remains that the things which make for complexity should not be permitted to begin so early as to endanger his imperative need of oral and written language and of the simple processes of mathematics.

We are a considerate and tolerant people. For a score of years good people whose minds seem to live in an inflated atmosphere have pretty nearly monopolized the attention in the schools where teachers are prepared. In the colleges and universities—their proper field, if they have a proper field—their doctrines and propositions are rather sharply resisted by other departments, and the zone of their research and confusion is healthfully circumscribed. But "researching" in the normal and training schools has few limitations, and the consequent uncertainty attains a density that brings average minds to prostration. The effect upon the young girl teachers is pathetic. They are not only called upon to do more things than they can do, in order to meet the demands of enthusiasts, but they are invoking the aid of occult sciences, and feel obliged to accomplish ends by constrained methods and devices which are destructive of that freedom which is the essence of effectiveness in teaching.

Useless illustration and exploitation consume time, if they do not obscure the point and defeat the end. Out of it all the children do not have trained into them the ability to do some particular thing. The parents are confounded. The school boards have become pretty nearly helpless. The general public is restless and anxious.

It is imperative that there be a closer adaptation of schools to situations, and that schools have more and longer control over children and move forward to definite ends. There is being much said now, and it is necessarily said, about the development of technical and trade schools in the towns. But that is but one manifestation of a wider difficulty.

The schools must meet the needs of a particular people, whether these needs are high or low, academic, professional, commercial, agricultural, or manufacturing. We cannot expect the people to adjust themselves wholly to schools. We must adjust the schools in very considerable measure to people. For some reasons it is better to describe a farm by saying that it is in the northern half of Section 20 in Township 9 in the north range No. 3, west of the 6th prime meridian, as they do in Nebraska, than it is to say that 83 acres, more or less, are in the town of Aroostock in the county of Skowhegan, and bounded by stone fences or lanes, monumented by a blazed tree, a deer's antlers, a fox's hole, or a red heifer, as they may do in the Maine woods. But one system will have to prevail until a better one comes in, and there are more important things than prime meridians in locating boundary lines, when the lands go down in the family, and you don't have to give, and nobody wants to take, a mortgage upon them. It is well if a people have got far enough to need and to support high schools and colleges, but if they have not, there is even greater need that they shall have elementary schools suited to their exact needs, and whether they have or not, their elementary schools must be adjusted to their conditions and look forward to their work, or the bottom will fall out of the high schools, or there will come an educational cleavage which is repugnant to that theory of government which has been the backbone of our prosperity and is the hope of our future.

We hear a great deal about consolidating schools and carrying children long distances to central schools in order to have graded schools and finer buildings. It is well where the people with such lights as they have, or will have, want it so, but there is no pedagogical reason why it should be forced upon them. There are difficulties about children being carried several miles to school, and there are pretty strong reasons why it is well to have a school within walking-distance of every home. Graded schools have troubles of their own. A school does not have to be a big school in order to be a very good one. The teacher who has to reckon with the life of the family and the outlook of the child, may be, and often is, doing much better teaching than the teacher who is bent upon conforming her processes to the creed of a training school or the philosophy of the books, without such an understanding of doctrine as will enable her to know that dogma is not of much account where it fails to meet situations. The percentage of strong and balanced characters who come out of the country schools, where the teaching is more personal and direct, is greater than of similar characters growing out of schools where classification is imperative and the teaching necessarily more impersonal and indirect. Modern conveniences are lessening the difficulties of the country schools. There is no overwhelming advantage in huddling people or pupils together more than they do it themselves under the necessities of the case. And it is a great pity that there is so much educational confidence or courtesy as to keep some doctrines about conformity in education from meeting with something like the frigid reception which bulls about conformity in religion would encounter in the General Assembly of my church. Sweeping generalizations are as inapplicable in one field as in the other.

This principle holds as good in the upper schools as in the lower ones. Some are "standardizing" American universities just now. You cannot standardize American universities any more than you can standardize the color of American apples, or the height of American women. There are apples that command the top of the market even tho they are not red, and there are women who are mighty, even tho they do not approach the altitude of the Broadway squad of the Metropolitan police. So there are colleges and universities which are first-class, even tho they have less than a thousand students and do not attempt many things that the larger ones make much of; and there are others which are second-class or third-class with two thousand or three thousand students, who are offered everything that can be named in an educational bill of fare. Classifying and standardizing are difficult and often dangerous processes in this country. They are impossible in American education. If it is a mere matter of association or congeniality, none will object, for that is a harmless matter of feeling and of tastes. If it is a means of educational helpfulness, it might well use better descriptive words. If it is a process of discrimination, of exclusiveness, of depreciation, then it must end where all meanness in education eventually does. There is no conclusive argument against the big college or the little college, the rich college or the poor college, the classical college or the industrial college. It is a question of fitness and efficiency, of adaptation and of accomplishment. No matter what other attributes it may have or may lack, that college is of the first rank in America which sends its flag farthest into the ranks of ignorance and meanness by turning out the largest percentage of true and productive men and women.

A few years ago Harvard University put the entrance requirements at the schools of law and medicine upon the basis of an approved baccalaureate degree. That was well. The schools suffered somewhat in attendance, but advanced scholarship gained by it. Then other universities discussed it, some attempted it, and a small number accomplished it. It was all well enough. But there was an assumption in the discussion that a move which might be a good one at one institution must be good at another. That is not necessarily true. By far the greater number of professional schools could not exist upon that basis, and it is desirable that such of them as are honest and doing the best they can shall exist. All intending professional students cannot follow a prescribed course of scientific training until they are twenty-six or twenty-eight years old before they are allowed to begin practicing a profession, and all people cannot afford to pay the fees which professional men so trained feel entitled to exact. You may tell me that I am standing for the lower rather than the higher ideals in scholarship. No, I am standing for the rational, the serviceable, and the fruitful ideals in scholarship. I am standing for schools that can serve the country. I am glad that some institutions are reaching the highest altitudes, glad that the time has come when students no longer need to go to foreign universities for the very best instruction. But every school is to have its chance, and every student is to have his chance. You may well believe that the time will never come when all or nearly all of the great men in any profession will be enrolled in the alumni of a single professional school, no matter what its admission requirements may have been. A full proportion of the great men will always come from small or weak schools in which there is some ordinary teacher who fires their lives. Schools are to meet situations that exist, and uplift constituencies of their own. They cannot do that by merely copying or conforming.

LACK OF AIM AND EFFICIENCY

The advanced schools, or their departments, have become so much differentiated that each has a very definite aim. By the time students are old enough to enter them they have gained rather clear purposes, and they select the school and the department which can do for them just what they want to have done. That is so in some measure, though much less so, with the middle schools. They are too often afflicted with more of a desire to undertake the natural work of the colleges and the professional schools, which they cannot do well because they cannot have the instructors, the equipment, or the basis of preparation for it, than they are endowed with a proud ambition to do the legitimate work of schools of their grade, so that when pupils have finished, it is known that they are in possession of the information and the power to do some definite thing which can be given a valuation in the world of education and in the world of fact and of affairs. Still, the pupils who remain after the second year in the high school do begin the process of satisfying ambitions which have begun to take definite form; and if they are clear enough of vision and strong enough of purpose, they often find the helps which their particular ambitions stand in need of.

There is practically nothing of this in the elementary schools. That is a most serious and menacing fact in American education. If it is said that there cannot be because of the immaturity of the pupils, it is answered that it is not so in other great national systems of education, and that the pupils are quite as immature there as here. The only aim in our lower schools is the grade above, and the one above that, and the road leads either to intellectual culture without any definite vocational aims, or to employments that are professional or at least semi-professional in character. As a result the multitude tires of it. The minority follows it, and, notwithstanding the steadily increasing exactions, more gain access to the professional and managing vocations than is good for them, good for such vocations, or good for the country. But the majority quit the road all along the line because they cannot see that it is going to lead to any definite acquisition that is going to make it to their advantage to remain.

It is a very common impression among the poor, and among some who are not so poor, that there is really more advantage to the child in going to work than in continuing in school. And if there was really work for them, and if they were actually being trained into it, how many of us could justly say that the conclusion is devoid of reason? But the grave fact is that the 60 per cent. of the children who drop out of the elementary schools without finishing them are not prepared for any definite work, no matter how simple, and the work they find does not lead to their improvement because it is of a kind which grinds the heart and bone out of them for the enlargement of dividends.

There are other facts associated with this one which must be mentioned but need not be argued. Any great work having relation to both sexes imperatively claims the co-operative effort of both men and women. The number of women teachers, the consequent low basis of wages, the agitation about equal pay for similar work in spite of all economic and educational considerations, and particularly the pernicious manipulation of party politics by organizations of women teachers in the larger cities, is preventing, speaking generally, the stronger men from engaging in teaching, and is forcing out some who have already commenced. For obvious reasons it is a menace to that balance in the work of the schools which is imperative to the interests of both boys and girls who are to form ambitions and find employments in a balanced world.

The doings of the primary schools in the great cities have undue influence upon the operations of the primary schools in the entire country, and this is particularly illustrated in the growing disposition to make a teacher's position a comfortable subsistence for life, protected by law, rather than an imperative and responsible instrument of common needs and of the best public opinion. Of course it has grown out of the very largeness of the system, and the unjust and reprehensible treatment which has sometimes been inflicted upon teachers by weak, or worse than weak, superintendents and boards of education. It all illustrates the difficulties which justice and effectiveness have to encounter at the hands of democratic government, and it particularly exemplifies the importance of thrusting all partisanship out of the management of the schools.

These things contribute to a situation which wastes the lives of pupils. With the unnecessary studies, the undue prolongation of studies thru a series of books in a single study, and thru the undue emphasis upon mere methods and exploitation; with the fact that the pupils are not reaching forward to some definite thing in which they are interested; with the further fact that the home is no longer of much help because the character of the home has changed, and because the work and processes of the schools are so changed that parents are unable to comprehend them, there is little wonder that the work is often behind the age of the pupil, as it is. Then there is the further fact that there is a very common national indifference if not repugnance to enforced attendance upon the schools. So there is no lack of explanation of the wastage in the work of our elementary schools, and of a percentage of illiteracy in the United States which exceeds that of any other favored nation in the world.

"ALL MEN ARE CREATED EQUAL"

What is the matter and what is to be done? Our democracy has often been misinterpreted and misunderstood. It is not strange that it has been misinterpreted, because there has been no other democracy like it. Something very important happened in this country on the 4th day of July, 1776, and because of that, some things even more important have happened since. Our independence enlarged the freedom of a people who inherited and never gave up their full share of the liberty of the nation which had gone farther in making laws, and in defining human rights under human laws, than any other nation in the world. Independence of itself gave us some rather inflated ideas about freedom, and those ideas have been still more inflated by the rather loose thinking of the millions who have come to us with the notion that freedom was offered and exemplified by the absence of the army or of the police, more than by the free play of moral sense, the equal rights of all, not some, of the people, and binding obligations and limitations of moral as well as civic law. The trouble has been that in the prevalent thought freedom has been regarded without much thought of the foundations upon which it must rest, and the limitations within which it must operate, and the processes by which it must be enlarged, if it is to be secure or is to be enlarged at all.

For a familiar but excellent illustration of this, see the difficulty we have in getting children into and keeping them in the schools. The attendance upon school is more irregular in the United States than in any other nation with whom we would be willing to be compared. It is not merely because there are people here who are indifferent to schools. There are such in all nations. It is not because we have more of these than other peoples have. It is because the measure of control is less here than there, and because of the common misunderstanding in this country of what freedom truly is, and of how it is to be retained or enlarged. In a word, it is because public sentiment is not quick about seeing the need of, or keen about sustaining the processes for, enforcing attendance upon the schools. We hold out more freedom of choice than other peoples. Our schools attempt more than theirs. They do what they undertake more completely than we. The habit of sending all children to school is much better established with them than with us. It has been established by law and by force. Our fallacious reasoning about freedom forces upon us a percentage of illiteracy several times larger than that of any other very well-organized and well-governed country in the world.

What is to be done? Laws and educational systems—and educational systems are one expression of laws—have to be recast frequently in order to correspond with the growth and progress of peoples. It is not necessary to conclude that our national and political fundamentals are wrong, as some seem disposed to do. It is only necessary to give those fundamentals a rational interpretation and erect a more perfect superstructure upon them.

One says, "Everybody who is well informed now sees that the declaration that 'all men are created equal' is only a glittering platitude." This is not true. That phrase was neither perversity nor a pleasantry. Far from its being mere rhetoric or bombast, it is, in my conception of the great soul of the nation, a tremendous basic fact, and I am proud of being one of the people who have confidently entered upon and successfully moved along the rugged road to its most complete realization in human history. I do not believe that the men in the Continental Congress were capable of mere bumptiousness or that they were incapable of expressing what they intended in very good English phrase. Of course, their manner of expression was of their day and generation. Within that limitation they succeeded very well in expressing the things to which they pledged their lives, their fortunes, and their sacred honor.

Has anyone ever supposed that, when they declared as a political truism that all men are created equal, they intended to say that men are equal in height or in width or in weight? Has anyone supposed that they intended to say that all men are equal in the tenseness of their feelings, or in the direction and the strength of their thinking? Or has anyone imagined that they intended to be understood as thinking that all men are equal in their possessions, their attributes, or their opportunities? Washington's armies fought for no such idle contention, for no such absurd ideal, as this. It was a lawyer's phrase. It was the phrase of good lawyers and it was a good phrase. The lives and training of the men who framed it, the only logical hypothesis upon which it can be made consistent with all the other things they said, and the only interpretation which makes the Declaration worth the struggle of the Revolution—all combine to make it clear that the laws of this country were to guarantee all men and women an entire equality of legal protection and legal right, that the common power should not be used to keep one down nor to lift another up, and that the laws of the land should articulate with God's justice in holding out to everyone the legal right to the equal chance to make the most of himself.

All that we have to do in order to enable our schools to promote our national ideals is to go back to the fundamentals of our political faith, square our theories with their obvious intent, and create instrumentalities which enable rational ideals to run their natural course, as the waters of the uplands follow their even channels to the sea.

Every American child is to have his chance. It is not to be thwarted by any law of the government or any usage of the people. It is not to be long hindered by the lack of educational instrumentalities which may aid it. Of course, the large factor is in the personal qualities which are looking for a chance, which can recognize a chance when they see it, and which have wits, and force, and endurance, and patience enough to make the most of it. But these are not the only factors. A child's destiny is not settled in this country by the circumstances of birth. It is a great thing to live in a land where experience proves that riches quite as much as poverty, the city quite as much as the country, and conceit quite as much as necessity, are barriers on the roads to the elevations. But even this is not all. A child's future is not to be clouded or obstructed by any assignments which a teacher may make, by any false valuations of the prizes of life, by any fallacious theories about the kind of success which is of the most worth, by any wasting of his time in order to accommodate the rigidity of an organization, or trying out the vagaries of pedagogical speculation, or by any forced misfits which must logically follow official, legislative, or professional misconceptions of the relations of our democracy to the free opportunities of men and women. It is time to stop practicing upon children in the schools; it is time to stop implying that work with the head is better than work with the hands; it is time to stop forcing them into grooves which satisfy notions that are too common, but in most cases lead to a loss of every kind of efficiency and to ends which are alike humiliating to the individuals most concerned, and opposed to the general welfare of the nation. It is time to put the emphasis upon work, no matter what it is about; it is time to inspire expertness, no matter what in; it is time to help qualities adapt themselves to productivity, no matter in what direction. Charity is not to be confused with the work of the schools. The right to an education is inherent. With that right the child must sink or swim, and more will swim if there is no confusion about it. But the schools must reach every child, no matter whether his parent wills it or not. We must have more definite aims, and we must assure more concrete results. We may expect the complexity of the educational system to meet the complexities of our modern civilization, but in some way each school must have a simpler life which will help, and not confound, all who are concerned in it. Every American child must have an open, free, clear, legal, American chance. So far as he is constrained or guided, it must be only in aid of his own freedom and in the direction of his own best possibilities.

UNIFORMITY IN PRINCIPLES

To help everyone gain his best chance, we must know what we are after. We must have a better understanding of the principles which we are trying to make good.

Every child, everyone in the land, must be recorded, to the end that his rights may be assured.

Everyone must have an elementary education, and before everything else an elementary education must mean the power to read and write and master the simple processes of mathematics

The school must have equal respect for every manner of work. It must know that without application and endurance there is no hope, and that with them there will be some result of just as much moment as any other result which it might have gained.

The work of the school must have definite aim, and its ends must be assured. There is too much scattering. Before a child is permitted to leave the school it must be known that he has a definite possession which can never be taken from him. The schools must carry him as far as, under the conditions of his life, the schools can be of help to him.

The schools must train for every vocation for which there is any reasonable demand, and the child must be under the control of the school until there is ground for confidence that he has some need of finding his chance, some desire and application, some fitness for employment which will enable him to begin to earn a living.

The child must be allowed his free election of vocation after he has acquired the simpler work of the elementary schools. But he must know that he is not to drop out and not to be allowed to waste his time, at least until he reaches an age or a situation where the case is apparently helpless and hopeless.

The work of each school, being simpler and more definite, must be more intensive. Unnecessary time is consumed. It is worse to waste the time of a child than to take away any other right that he may have. He must get the larger part of his culture thru his work. It will be a finer and truer culture. Culture that comes thru mere instruction is well, but it is secondary and must wait upon the essentials. The same with mere information. If he has the elements which give him the power to get it, he will get it when he needs it or when he wants it. If he does not, the public cannot help it.

All the children of the United States are entitled to be taken out of the list of the illiterates and to be taught to do some definite thing, and to be made to know that their success depends upon their doing it better than others do. Then the unexpected and the surprising successes will doubtless be multiplied, and whether they are or not, the nation will be the stronger for it.

DIVERSITY IN MEANS AND METHODS

With some reasonable agreement about the measure of opportunity which the educational activities of the nation are bound to hold out to every American child, and with our abundant knowledge of what is going on in every part of the country, there will be all of the uniformity desirable if we encourage the freest diversity and individuality in means and methods. It is not necessary that the schoolhouses be of the same height and color. They do not all have to have heating plants that balk when called upon for special effort, and forbid an open window at all times. The schools do not all need to have identical courses of study, and there is no reason why they should use the same books. The teachers need not have the same convolutions in their brains that have formed in the brains of those physiological psychologists who fall down in their physiology and get beside themselves over their psychology. It is of less moment what one knows when he enters a school than what he knows when he leaves it. It is enough if he has the power and the will to do the work. With some reasonable promise of that, he is to have his chance. The most unpromising freshman often develops into the particular star of the Commencement morning. There are to be standards, but they are to be the standards of individual institutions. The degrees of all of the colleges ought never to be expected to represent the same thing. We are to prevent fakes and frauds. It is well for a state to protect academic terms from such abuse by fixing the attributes which an institution must have before it can hold itself out to be a high school, an academy, a college, or a university. But being within the legal requirements, and being honest, it must find its own level and abide its own doings. The pupil, the student, and the teacher are to use the means they have or can get, in their own way, to their own advantage, and to the common good.

THE FUNCTION OF THE SCHOOL IN TRAINING FOR RIGHT CONDUCT

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Few people think. Man is born into a religious, social, and political world. If his mother be a Presbyterian, he is a Presbyterian; if he is born under the Stars and Stripes he is predestined to believe in the equality of man and to shout lustily with his fellow-countrymen the battle-cry of freedom. In reality he is no more a Presbyterian than a Methodist, no more a free man than a slave. He is merely living in the atmosphere of Presbyterianism and his mental action—such as it is—is conditioned by the significance of the flag which floats over him. There may be occasional slight movements of the gray matter, but if snapshots of brain formation could be taken from time to time thruout life the pictures would be almost identical, for the activity in the brain cells is never sufficient to change the pattern of their arrangement. Whose fault is it? Largely yours and mine. But we educators think! Some of us, yes, and so did the mediaeval philosophers when they disputed about how many angels could stand on the point of a needle.

It has frequently been pointed out that the progress of civilization is not marked by a steadily upward curve, but that there are great heroic periods in which such powerful thinking has been done that the very foundations of society have trembled and the solidly built pillars and posts of accumulated thought have swayed and fallen like slender twigs. Invariably this tremendous upheaval has been the work of the few, and immediately these periods have been followed by an almost slavish idolatry of the many to the "new thought," or what is worse, by an ignorant unemotional acceptance of it as truth. Always miniature heroic periods are in progress. Always there are the few who are thinking and the many who are thought for. We educators who, like all the rest of the world, are thus classified into thinkers and thought for, fall into our places naturally, and it seems to us logically, with a certain calm conviction that because it always has been so these positions are a part of the eternal fitness of things. We do not seem to realize that it is our function not only to think, but to think to some purpose, that purpose being the production of thought in others, whoever the others may be. If these statements are accepted even thinking educators may be thoughtless. Neither the best school principals nor the most brilliant and painstaking superintendents are altogether thoughtful; if they were they would provoke more disputation and receive less adoration.

But altho it is true that as a rule few people think, on the other hand there may be conditions physical, civic, or religious that stir into violent action even the most sluggish intellects; and then we have whole communities thinking out loud. Oregon, occupied during the last three years with the prosecution of those concerned in the gigantic land frauds of the Northwest, has succeeded in convicting more than two dozen men, among them a United States attorney, a United States senator, and a congressman. Oregon today is *thinking out loud.* And San Francisco, dearly beloved city of our Golden West, laid waste by earthquake, girt round by fire, and betrayed by her own self-chosen rulers and trusted citizens; San Francisco, the proud warden of the Golden Gate, bowed down with sorrow, humiliated, trembling with indignation, but refusing to be conquered by any combination of circumstances; San Francisco, aroused, alert, sadder and wiser; San Francisco, too, is *thinking out loud.* And all the world is listening, but, unfortunately, not to learn. San Francisco is not a bad city—as cities go; she is better today than she has been for long years; far better than other cities which have not yet begun to think. There is more interest in civic affairs, there are more "good citizens" in California today than there have ever been in the course of her history, because there are more people thinking. Bartly P. Oliver, foreman of the grand jury that indicted Abraham Ruef, the city boss, and Eugene Schmitz, the corrupt mayor, and a long list of business men and city officials for extortion, said to Lincoln Steffens:

> I don't know whether this work will have done any good to San Francisco . . . . but it has done good to us jurymen. I wish the law required twenty or fifty thousand men on a grand jury. If that many citizens could sit there as we have, see what we have seen, hear what we have heard, they would all become good citizens; citizens first, I mean, and business men and heads of families second. They would save San Francisco.

Not fifty or even twenty thousand men sat on this grand jury, but hundreds of thousands of men followed with keen interest the problems with which the grand jury were confronted, and, in following, did, perhaps, the most profound thinking of their lives. The result is even now apparent. San Francisco, knowing her sins; San Francisco, confessing her sins; San Francisco, publishing her sins; San Francisco, repenting her sins; San Francisco, atoning for her sins, is a better city to-day—God bless her!—than she has ever been before.

Let us be fair. All of our great cities are full of corruption. Not one of them would "show up" well under the searchlight of a Heney, a Langdon, a

Burnes, and Spreckels. And smaller communities are not better; they are merely untried.

What has all this to do with the subject under discussion—The Function of the Schools in Training for Right Conduct? Everything. These cities and communities are made up of men and women trained in our schools. There is no evading the question of our responsibility. To be sure we can dodge like cowards behind the high board fence of excuse and lay a large part of the blame upon the home, the church, the press, the stage, the saloon, and the community at large. These excuses may be valid enough, but it is not "good form" for us to make them. The individual continually explaining why he has not done and why he cannot do as his reason and conscience dictate is mentally and morally dead, and it would be better for the world if he were physically dead; there would be more room left for the doers. What is true of an individual in this respect is true of an institution. It goes without saying that there are excuses to be made for the failure of the schools to produce true citizens, but in the name of all that is in good taste, let us not be the ones to mention them.

The public school, then, to whom the state intrusts its children for training, is not succeeding in the *moral* training. What are we going to do about it? That is what we have met here from all parts of our country to consider. That is what we are here to *think* about.

We cannot hope to do much in a few short hours, but may we not search out some of the vulnerable points in our teaching and aim our arrows at those points? May we not offer one or two suggestions as to method of procedure?

A. In the first place it will be necessary to agree upon a few fundamental principles. Training for right conduct means training for good citizenship, and training for good citizenship means training for social efficiency. There seems to be absolute unanimity of opinion among those who have given the subject most thought that social efficiency is the meaning of all education. All that the boy is in school, all that the man is in the world means social efficiency or social unfitness. Schoolmen, philosophers, psychologists, and sociologists are agreed upon this major premise.

B. This being true it follows that enormous emphasis should be put upon training for right conduct and that this emphasis to be most valuable should be given by the right people, at the right time, and in the right way.

1. *Who are the right people to train our boys and girls in good citizenship?* Anyone of average intelligence who devotes even an hour to the answer of this question, dwelling upon it earnestly, honestly, and thoughtfully, will know that the right people are not necessarily the holders of teachers' certificates, or the proud possessors of normal-school diplomas, or of college degrees, even if the latter contain the euphonious letters M.A. or Ph.D. We spare you analysis of the ideal teacher for the training of citizens, not, to be honest, from lack of time, but from lack of ability to do the subject justice. A few points, however, might profitably be mentioned. First, then, our ideal teacher

knows about things, knows a little about many things, and a good deal about one or two. Secondly, the right man to be a trainer of American citizens is the one who voluntarily chooses to be a teacher; he has not been driven into the teaching ranks by force of circumstances, because he has failed to make a successful lawyer, or because he hopes to make one. He is proud of his calling and embraces every opportunity to advance it. He thinks more deeply and more often upon the meaning of education than upon the logical sequence of a course of study. He is sympathetic in his attitude toward children, remembers how it felt to be a boy, and believes in what Chester W. Rowell calls "the glory of youth." He is so happy in his work that he frequently forgets he is earning a salary. He has not obtained his position by a "pull," nor does he countenance this method of placement in others. Being a citizen in a democracy he does not take upon himself the prerogatives of an autocrat. And last, but not least, he is not merely a schoolman, but a man among men, interested in the general welfare of the community, taking his part actively and thoughtfully in the duties of citizenship, never neglecting his obligation to vote for the best man. This last point is important. How can he hope to impress upon his boys the responsibilities of citizenship if he himself is indifferent to one of its most binding obligations? It is his very participation in the civic problems of his country that makes him a fit interpreter of the fundamental principles underlying a democracy. Wide awake and patriotic himself, he discusses with his boys and girls the essentials of good government in the home, the school and the state, enriching the discussions with concrete current illustrations that he can obtain only in active political life and vitalizing them by an enthusiasm, a personality, if you please, that no amount of poring over facts in the latest textbooks could give him. Therefore, in behalf of the state, we beseech you, principals and superintendents here assembled, when placing men in your schools to select big, honest, clean, whole-souled *voting* men.

Now let us be consistent. Statistics show that only 24 per cent. of the teachers of our public schools in the United States are men. In the New England states the proportion is much lower, about 8 per cent., and there is a steady decrease from year to year thruout the country. About three-fourths of the training then for social efficiency or, in other words, for good citizenship, must be done by women. Where are they to drink from the fountain of interest? How are they to be brought to think deeply upon questions of civic purity? How are they to widen their personalities? Where are they to obtain that subtle but essential qualification of a good teacher, prestige? Do we not say over and over that impression without expression is futile, that patriotic emotion without action is despicable? Obviously then it were better for women teachers to have no impressions regarding civic questions and no emotions. You may have observed a few such women in our public schools. Would it be surprising if it were found that they were the first to find the weight of their souls unbearable and to part company with them at the schoolroom door; if they were the first to become infected with what Dr. Frederic Burk, in a recent essay, aptly, if somewhat inelegantly styles "the dry rot"? But this we know, present conditions of political life do not tend to make women the most intelligent citizens possible, yet women do the greater part in training citizens.

2. *Training for right conduct in the schools should be given at the right time.*—What is the right time? At a superficial glance this seems easy to determine. Beginning with the child's entrance into the schoolroom, it ends with his departure. This statement rolls off the tongue too glibly to carry with it much meaning. It is one of those dangerous ready-made, thought-destroying propositions. If the aim in training for right conduct is to be social efficiency, then its expression is manifold. Shall all the forms of conduct be taught to all of the children all of the time, or is there a development and growth in the moral life corresponding to that which conditions our action as regards the child's physical and mental life? Undoubtedly there is, and tho here is a great field for legitimate child-study, yet enough has been done to establish the general law and to give us a basis for thoughtful procedure. To attempt to give to the six-year-old child the principles of good government underlying school and family life would be nonsense, while it would be equally foolish to expect of an upper-grade boy or girl the same kind of obedience exacted of the first-grader. The adolescent period so turbulent and sensitive requires the most skillful and delicate treatment, and calls into play the teacher's widest experience of life, understanding of literature, and sympathy with youth. Each group or grade of children has its own moral problems, and each has its right time for their solving. No human being, save the teacher herself, can tell just when this time is to come, but she should know what her special problems probably will be and that there *is* a right time for their solving, and should educate herself to recognize the time and to be ready to meet it. The great point is to choose the time when the children can best be led to *think* upon the problem.

But aside from the fact that children can be grouped in the large, according to their mental development, and trained in right conduct, there are those who need individual attention. The right time for them is not in the presence of the group. Indeed most children need private conferences oftener than we realize. The mere separation from the others, and the setting aside of a special time for a personal interview emphasizes the importance of the subject, tends to arouse deeper thought, and impresses the child with the delicate feeling of the teacher. No one understands this selecting of "the psychological moment" better than the wise and tender mother of whom the heroine of *The Widow O'Callaghan's Boys* is an excellent example. You remember how, wishing to get the willing consent of her eldest son, Pat, to a plan, upon the success of which depended the general welfare of the family, but which demanded on his part a real sacrifice, she waited impatiently until evening when the other children were in bed, soliloquizing during the day as follows:

> There's toimes to be spakin' and toimes to be kapin' still! Niver a word must I be sayin' till the rest of 'em's abed, and it's hard waitin', so it is. It's my belafe that's what makes some b'ys so unruly—takin' 'em at the wrong toime. Sure and b'ys has their feelin's loike the rest of the world. Spake to 'em by their lone silves when you've aught to say to 'em. There's niver a man of 'em all, not even Gineral Brady himself, would loike bein' bawled at in a crowd about somethin' that needed thinkin' over.

She speaks truly; if we want right conduct, we must first obtain the "thinkin' over," but too often the being "bawled at in a crowd" destroys the "thinkin' over," at least of the question under consideration; it has been known to start a very vigorous line of thought, however, concerning the boy's opinion of the teacher.

There is another sort of right time, a time conditioned by the needs and ideals of the age. The twentieth century has its own special virtues and vices and sins, the product of new desires, temptations, opportunities, and responsibilities. Our moral catechism, while founded upon the everlasting principles of brotherly love, is a much larger volume than is found between the covers of the little primer of *Rules for Righteousness*, written when life was largely restricted to the experiences to be found in a community bounded by a day's journey on horseback, and in which all the inhabitants lived the simple life. New conditions are arising every day, tending more and more to confuse the thoughtless and weak-minded as to what *is* right conduct, and giving opportunities for the socially unfit to riot *ad libitum* in selfishness, greediness, criminal negligence, thievery, and even murder. Partnerships of good and bad qualities, of right and wrong action in the same individual, definite partnerships entered into for the purpose of "getting on" in the world are among the most prominent evils of our day. A man entering into such a partnership with himself makes his virtues the tools of his vices. Smug respectability, certain forms of generosity, and even of fair dealing, temperate habits, and exemplary conduct as regards family life leave a man free to exercise his ingenuity in the adulteration of foods, the erection of unsanitary buildings, the manufacture of unsafe machinery, the slavery of little children, the obtaining of special business privileges, the exemption from legitimate taxation, the bribery of public officials, in other words leave him free to lie, to steal, and to murder. Professor Edward A. Ross in his brave little book, *Sin and Society*, describes for us most graphically this new American variation. He names him the criminaloid, and he tells us why we suffer him. He says:

> The real weakness in the moral position of Americans is not their attitude toward the plain criminal, but their attitude toward the quasi-criminal. The shocking leniency of the public in judging conspicuous persons who have thriven by anti-social practices is not due, as many imagine, to sycophancy. . . . . It is due neither to sycophancy nor unthinking admiration of success, but to perplexity.

If this countenance of immorality by the people is due to their perplexity; if the state is calling at this special period of its history for civic reformers, then the school must clarify thought and must answer the call. It must send out citizens prepared to meet the criminaloids; sane, clear-headed fellows, honest and fearless as our Heney, who will tear away the masks of these "grafters" and reveal the hideousness beneath. But the state needs not only educated leaders, but also educated followers. Not every boy and girl can be trained for leadership, but we can at least do much to relieve the public mind of perplexity. We can teach our children to look behind masks and to call things by their right names. We can substitute knowledge for ignorance, certainty for doubt, clearness for confusion. We can teach our children to *think* upon the problems that need to be solved in their own day.

And this brings us to one of the most difficult details of the subject with which the school is confronted: that of the time for the teaching of right conduct in relation to the daily school program. Shall it have a fixed place among the other school disciplines, or shall it be taught incidentally as occasion suggests or demands? It is, of course, true that we should train for social efficiency all the day through, that each subject is but a means to this end, otherwise we may very well be educated (if one may thus misuse the word) criminals instead of citizens. This utilization of subject-matter selected apparently merely to give mental and physical efficiency in the interests of social efficiency is admirably treated in several books, published within the last five years, and it is to be hoped that teachers may not only read but heed what is said therein. The teacher who even attempted the utilization of subject-matter selected apparently merely to give mental and physical efficiency for the teaching of social efficiency could not fail to keep before her own mind, at least, the true goal of education and that would be a great point gained; for the truth is that the rank and file of our teachers, while acknowledging as a logical deduction the supremacy of right conduct as above what passes for right arithmetic or right geography, yet do not demonstrate their so-called belief in actual practice. It is probably partially due to the fact that only the best teachers are able to teach in this way. The others moralize, and—the sentence is stronger unfinished.

All teachers possess, however, that evasive, unanalyzable characteristic called personality, and the teacher's personality is with the children literally all the time, leading always toward or away from right conduct. Far more of a point should be made in the education and selection of teachers of personality. Personalities can be strengthened, widened, and made beautiful. Trainers of teachers are much to blame when they graduate weak, narrow, ugly personalities. But, taking our schools as we find them today, taught by men and women intellectually brilliant, average, and dull, technically trained, self-trained, and untrained, earnest and careless, enthusiastic and blasé, shall we recommend that training for right conduct have a definite place upon the school program; shall it be taught incidentally or shall it be taught directly at all?

To hark back to one of the first conclusions of this paper, the schools at large are not making a success of their training in right conduct. We *must* do something about it.

Mr. Frank Cramer in his admirable essay on "Moral Training in the Public Schools" says:

> Nothing like a general effort has been made as yet to formulate the requirement that can properly be laid upon the schools, or the materials and methods with which to meet them. We are standing now with our feet in the edge of the water and shivering, like the naked little boy, more from fear than cold, deterred from going back by shame and from going in by the goose-flesh conviction that we shall never be able to do it. . . . . Swimming is best learned by going into deep water. . . . .Though we are still very far from a general agreement about what things ought to be taught, how they should be taught and the order of teaching in our purely intellectual work of the schools, yet enormous progress has been made.

The inference is, of course, that the same progress will be made in moral training if only we once seriously begin. And we *must* begin with the same solemn earnestness with which we begin any great undertaking. If only we will listen to the warnings of the state, if only we will watch those who are fighting the great social evils of the world, if only we will observe the sad confusion and perplexity in the minds of our well-meaning citizens, if only we will follow the lowering of our business ideals and their influence upon our politics, surely we who have so much opportunity and ability for the righting and preventing of these wrongs for the state will not dare to wait. Of course we shall make mistakes, of course we shall make failures; but the trend of the curve will be upward. We ought long ago to have taken definite action regarding training for right conduct. When we *are all thinking*, then the actual work will begin. What I mean is to make it a great national movement, for no one is so ignorant as not to know that heroic work is being done here and there thruout the country and especially in the great cities; but it needs big supplements, the inspiration of big thought and the strength of mighty co-operation.

A form of *incidental* training for right conduct—if training it can be called and if right conduct it can be called—has always existed even in the worst of our public schools, the conduct being merely action conformable to the will of the teacher in order that his work might be made easier, and the training therefore being appeal to fear of bodily pain. The incidental method, then, tho radically different in character today, has the sanction of custom behind it, and doubtless some of the very best training for right conduct in our schools today is done in this way. Education itself is sometimes defined as ability to see and to seize opportunity; and the thoughtful teacher, alert, wise and tactful, seeing and seizing the incidents of the everyday life and turning them to account for the inculcation of principles of government and norms of conduct is fulfilling her duty nobly. The careless teacher, on the other hand, allows the "psychological moment" to pass by unheeded, crowded out by the petty details of the day's work—examinations, promotions, or the best method of teaching partial payments. The dull teacher is blind—she does not see the opportunity; the blasé teacher is indifferent—she does not seize the opportunity; and the untrained teacher is crude and deals with cases requiring the utmost delicacy so hurriedly and thoughtlessly that she does more harm than good. Indeed, the greatest adverse criticism to be brought to bear upon this method is that it does not require sufficient thought on the part of the teacher. Even those who use it most successfully are apt to depend entirely upon the thought furnished by previous experience vitalized by the inspiration of the moment; but too often this inspiration, being merely the excitement of a passing emotion, containing no life-giving quality and ready-made thought, even if it be one's own, is deadening.

The incidental method of training for right conduct cannot be universally accepted as all-sufficient, and a definite portion of the day must be set aside—perhaps the first part of a morning hour before fatigue sets in—for the thoughtful discussion of ethical questions. What ethical questions? The teacher, aided by the principal or superintendent, must decide. The discussions must never take the form of sermons, nor should the subjects for discussion be made to order for the teacher, following a logical chart or scheme. That is the way we used to teach the other school subjects until psychology and sociology taught us better. Formalism is the death-knell of originality or enthusiasm. I know a city in which the superintendent prides himself upon the fact that at any selected hour of the day every child of a certain grade is being taught exactly the same lesson; if it be the arithmetic hour the children are solving the same problems; if the language hour they are learning the same poem; if reading, they are reading the same selection, etc., etc. Could any device serve better to take the sparkle, the initiative, the very thought out of a teacher? These discussions then must not be logically blocked out; on the other hand they must not be haphazard and must fit in with the life of the child. They must be those that in general appeal to a particular group of children. They must meet the needs of the age. They must not be too hard or too easy of solution, for above all other virtues they must possess that of arousing and sustaining thought. A teacher's notebook for the jotting down of subjects based upon concrete instances awaiting their future arrangement is helpful. But it is not proposed at this point to enter into a consideration of the method of conducting these conferences, but rather to suggest that we decide to give some definite portion of the day to this work. To be sure, the careless teacher will be careless, the dull teacher will be dull, and the blasé teacher, blasé. The regularity of the discussions will, however, serve to emphasize the carelessness, the dullness, and the blasé attitude. It will bring these facts insistently to the attention of the superintendent and of the community, and may result in the removal of the inefficient. On the other hand, the necessity for having something to say will force the lazy teacher to think, the mediocre teacher to think more deeply, while the wise and thoughtful teacher will be given time to do artistically what she has been hurriedly pushing thru "between classes," and best of all, it will allow time for the children to think, to weigh evidence, to study conditions, to suspend judgments, to clear up perplexities.

3. *Training for right conduct should be done in the right way.*—If we could be sure of training for right conduct being done by just the right people and at just the right time—in every sense of the words "right time"—then the right way would follow logically, and we should be living in Utopia. But America is still some distance from Utopia; we cannot be certain of either the people or the time, so it is necessary to speak of ways of training.

In what ways then shall we train for right conduct? There is time to consider but a very few, but the training should be

1. In a way to arouse and sustain thought.
2. In a way to produce excitement.
3. In a way to stimulate *good* action, rather than to emphasize bad.
4. In a way to develop proper humility.
5. In a way to develop responsibility for the welfare of others.
6. In a way to form standards of conduct applicable anywhere.
7. In a way to *produce* right conduct.

1. *In a way to arouse and sustain thought.*—Few people think. The schools are to blame. The great need of our day is clearness of vision. Not many people aspire to be "arch fiends," yet a goodly number attain that distinction. Hiding under the cloak of respectability, conforming to many of the accepted principles of good citizenship, probably temperate in habits—that was one of Abraham Ruef's striking virtues—clean physically, generous to the few, providing liberally for the family, loyal to the clan, the criminaloid's ambition is ever to make a good appearance among his fellows, to bear a good name, to be known as a good citizen. Even his crimes are disguised under the term "business irregularities." Suggestion is a potent factor in conditioning mental processes, and one can readily understand how such a man may not only persuade the world but even himself that he is really a pretty good fellow. Do we find anything analogous to this in our schools? Some of the most popular high-school fellows "crib," that is, lie; "swipe" anything from a physics' folder to a freezer of ice-cream, that is, steal; sign their parents' names to letters of excuse, that is, commit forgery; evade or defy laws made for the public good, that is, sow the seeds of anarchy. The boys do not commit these crimes in order to be bad, but rather in a spirit of daring or bravado. They do not look upon their misdeeds as crimes; under their new and catchy slang names, they are mere school "irregularities." What can we do about it? Suggestion is a potent factor in the conditioning of mental processes; it may be made to function for good quite as well as for bad conduct. Suppose at the time set aside for the training in good citizenship (one advantage of the selected time as opposed to the incidental method is that the questions involved can be approached more easily indirectly), suppose at this period a wise teacher could bring before his class the larger questions of business ethics and political honor in a series of inspiring, intellectual, serious, but not sentimental talks, illustrating freely from current events, and delicately carrying the discussion sometimes into the very border land of

school life, leading the class to think and letting them draw their own conclusions. His work would do much to dispel the clouds of ignorance in which boy mind is enveloped. I am thoroly convinced that if boys could be made to see that their "irregularities" were crimes they would not commit them. In a certain sense these sins against society are far more dangerous for society than the more personal vices of drinking and smoking, e.g., to which the schools have given always a good deal of emphasis. Heaven forbid that I should plead that our boys should not be wisely instructed regarding the effects of these drugs upon the growing body; but there are other worse vices to which we seem almost indifferent. The honest working man who takes a glass of beer with his luncheon is a prince of purity compared with a man like Abraham Ruef, even if the latter should never have tasted a drop of liquor in his life. These beginnings of sins—these sins themselves—committed in school life are sins against society, and our children must be led to *think* about them in this light.

2. *In a way to produce excitement.*—Training in right conduct must not be tame Undoubtedly one of the greatest incentives to crime is the excitement involved. It must be interesting as mere intellectual gymnastics to lay big schemes of any sort. The scientist has his theories, the poet his dreams, the business man his plans, and the politician his diplomacies, and there must be great pleasure in watching their development, and enormous excitement in overcoming obstacles to their successful achievement. The fact that his schemes are laid for the purpose of duping and defrauding people falls into insignificance in the mind of the criminaloid when he considers the pleasure to be derived from their skillful manipulation, and final consummation. Even lesser crimes partake of the same excitement. The sneak thief who deftly and perhaps artistically removes a man's watch from his waistcoat pocket undiscovered must experience a thrill that is akin to that of the valiant army officer skilled in military tactics crawling stealthily upon the enemy to suprise them unawares. Mentality is all of a kind; it is only the purpose for which mind functions that differentiates a saint from a sinner. Judge Lindsey tells us that he himself was tempted as a boy to rob a hen roost, not for the sake of the possession of the fowls in question, but largely from the excitement in it, and he frankly adds that he was preserved from the fulfilment of the act not by a realization of its wickedness but by an overpowering feeling of cowardice. Most of the vandalism committed on holidays and after school is due to this desire for something to happen. A great deal of the attempt to evade rules and law is merely the uncontrolled temptation to match mind with mind and see who wins out.

Our training for right conduct ought to take on a more lively, attractive aspect. Being good and doing good is made too tame. In the vernacular of the child, "There's nothing doing." There is no reason at all why the exercise of good conduct should not often be very exciting. To use but one of many illustrations, probably the element of surprise in all schemes is one of the most pleasurable. Let us have surprises, then. "Not possible," you say, "in school life?" Then socialize the school life and make it possible. At Christmas time, Thanksgiving time, St. Valentine's Day, May Day, and on various other holidays rather elaborate surprises can be arranged for; but all thru the days opportunity may be given. Invalid friends can be surprised with gifts made in school, parents and other relatives can be surprised on their birthdays, absent classmates may be written surprise letters—often they are surprising indeed. Literary, musical, and dramatic programs, themselves intrinsically exciting, planned with the utmost secrecy, may cause any amount of pleasure to the surprisers and to the surprised. Sometimes a class luncheon is planned to be eaten on the lawn or a "banquet" in the hall, and the principal is supposed to be greatly impressed as well as enormously astonished when he discovers that the banqueters have provided not only edibles but *toasts*. These surprises give rise to a good deal of scheming, and active minds are kept busy outwitting others equally as active; but mentality is functioning in the right direction; for the aim of those who are scheming is to give pleasure and not pain to those whom they succeed in outwitting. There is nothing wrong in scheming if its methods are square and its purpose high. As we say in San Francisco, "It takes a Heney to outwit a Ruef."

3. *In a way to stimulate good rather than to emphasize bad action.*—Training for right conduct should be affirmative rather than negative. One of the dangers of the incidental method of moral training is that the incident chosen is almost invariably the commission of a wrong act which the teacher tries to bring the children to see and to acknowledge is wrong, and in which, therefore, they must not indulge. Subtle suggestion is not so easy for that reason. The class know from the beginning that the incident is the text, and that its treatment is to be a good deal like a sermon. Then, too, the negative character of the incident emphasizes the everlasting "don't," always depressing and sometimes demoralizing.

But if there were a time for it the teacher could speak frequently of the *good* deeds going on in the world, in the country, the state, the city, and sometimes in the school. I say sometimes in the school, because there is always danger of making children self-conscious and of developing not good citizens but goody-goody prigs. Again sensitive children like the Widow O'Callaghan's Pat hate "bein' bawled at" before others quite as much when they have done right as when they have done wrong. As a type of what seems to be a wise use of an occasional emphasis of good conduct in the school, let me quote from a newspaper clipping the following item. I omit the name of the place and the school. "The grammar-school graduates of the X Grammar School, now members of the Y High School, who have received straight 'A' records for this last month's work (allow me to say in passing that in this high school there is no undue stress put upon marks, A being, however, evidence to the child that the work outlined is being well done) were tendered a reception and banquet by the grammar grades of their former school. Toasts were given and resolutions drawn up expressing the children's pride in these high standings attained by their former classmates. . . . ."

Pride in the honestly acquired successes of others and expressive appreciation of it tends to inculcate brotherly love, one of the chief factors in social efficiency.

4. *In a way to develop proper humility.*—Much stress in all books upon moral training is laid upon the cultivation of self-reliance and self-respect. In doing this care must be taken to avoid what might be called self-sufficiency. In the adolescent period boys and girls tend to become laws unto themselves; not only do they resent restriction because it interferes with their desires, but they chafe at it because they do not believe in its necessity. They feel perfectly sure of themselves; they trust implicitly and unquestioningly their own judgments; they are abnormally self-reliant.

Small doses of simple psychology for these young egotists prove effective. If not able to take up the abstract question of what mind is, they can, at least, know some of its laws and how its working is conditioned. Nothing fills us with greater humility than the fact that we cannot always trust our judgments, that tho they may be true in the sense that with the apperceptive basis furnished they could not be otherwise, yet nevertheless other judgments based upon a richer experience may more nearly reach actual truth. When once this fact has been grasped—and it does not take long to teach it, because psychology, new and mysterious, is always interesting to children—they will be found much more open to conviction and will even voluntarily concede points of whose truth they acknowledge they are not convinced. This concession is by no means to be confused with blind obedience. It is the voluntary suspension of one's own judgment until a broader basis for forming it can be acquired, meantime trusting in the wisdom of more-experienced friends. Sometimes this humility has to be taught quite early in life, and, if traced to its source, self-sufficiency is found here also to be due largely to lack of knowledge. But children must learn that, if they cannot be brought to see the right as we see it, to mistrust their judgments and to rely for the time being, at least, upon ours. We ourselves do likewise when confronted with questions too difficult to be answered by our weak intellects, as Professor Barnes so well points out in his latest book, *Where Knowledge Fails.* We stop trying to know what baffles our intellect, and "where knowledge fails" give ourselves trustingly into the friendly arms of faith. Surely no one will deny that a certain amount of humility might very well be made an influence in the conduct of the average American youth: " 'tis a consummation devoutly to be wished," but can never be accomplished by unceasing reiterations as to the crudity and foolish characters of his judgments. He must be taught to mistrust them and to have faith in ours.

5. *In a way to develop responsibility for the welfare of others.*—Much of the so-called discipline in school could be avoided if boys and girls were impressed with a sense of responsibility toward their schoolmates. For instance,

the boy who disturbs his class by foolish pranks, who will not settle down to serious work, because it is more interesting to act the clown while the class applauds, will be greatly benefited, and the characters of the class greatly strengthened, if they, realizing their responsibility for their neighbor's conduct, refuse to be amused by his silly or even witty tricks. Children should know that it is the privilege of boys and girls to attend school, and that only those are suspended or expelled whose bad conduct is influencing others unduly. If now they refuse to be influenced they may be the means of winning back into the ranks of good citizenship a fellow-being who otherwise may be forever an outcast from society. Too often the incorrigible is actually *made* by the attitude of those who not only suffer but applaud his doings. There are schools, however, in which the pupils are so interested in the conduct of one another and feel so strongly their own responsibility concerning it that when a child must be sent away from among them, they are deeply sorry, and, blaming themselves, wonder what they might have done to prevent the necessity of the expulsion. I am not advocating children's preaching to one another, tho sometimes a child's advice is taken kindly, especially that of a girl to a boy, but we might, at least, impress the fact that enjoying and applauding bad conduct make the applauder a coworker with the wrong-doer; and—what seems to be more easily understood and accepted—lead directly to his downfall. Each one of us is his brother's keeper. This is a responsibility put upon us, God-given, not to be avoided.

6. *In a way to form standards of conduct applicable anywhere.*—A so-called well-organized school may be so well organized and so schoolish as to furnish very narrow limits within which conduct can function. That is one advantage of a self-governing system, like the George Junior Republic. There the youth meets exactly the same problems as will confront him in adult life and he early learns to see things in their true light and to call things by their right names. While this extreme discipline is not possible, or for the average American child necessary, yet it is highly desirable that our schools in their functioning more nearly approximate the activities of the larger world. Especially, it seems to me, should children be given opportunity to form ideals of business methods. Honor in business dealings is a fact upon which Americans have justly prided themselves. Children should know this and be taught to keep the standard high. Square-dealing between man and man is still, thank heaven, the American ideal.

7. *In a way to produce right conduct.* Training for right conduct, begun in thought, must end in conduct. No amount of thinking about social efficiency will necessarily result in conduct. Too often teachers leave off their training just at the point of its going into effect, e.g., perhaps some of the best work attempted in the correction of wrong conduct in the personal interview is left incomplete. The child, brought to see the error of his ways is honestly repentant, and full of good resolutions for improvement. And here the teacher feels the climax is reached, and he is allowed to go on his way re-

joicing. Probably he falls into the very same trouble the following day and perhaps the interview is repeated, ending at the same point and so on indefinitely. Bad habits are not broken by means of mere resolutions, nor are good habits formed in this way. The teacher should ask, when the point of repentance is reached, "Now what are you going to do about it?" A child accustomed to the old form of procedure in which the resolve is the end of all things is always surprised at this question, and it must be confessed, his repentance and sorrow sometimes visibly weaken when he gets the full force of the suggestion. If he is not able to block out a course of action, then the teacher must help him and help him also in keeping it. Older boys and girls are greatly interested in the psychology of habit, and are charmed to find that the laws of habit are not hard to prove, while the so-called repentant, full of empty resolves, is easily brought to a realization of their futility when he learns that "there is no more contemptible type of human character than that of the nerveless sentimentalist and dreamer, who spends his life in a weltering sea of sensibility, but never does a concrete manly act." In our training for good conduct we have put too much emphasis upon intention and resolution, and not enough upon conduct itself. We are prone, having gained the resolution, to take the conduct as a matter of course. The deduction may be logical, but it is far from psychological.

SUMMARY

1. Few people think. Failure to think rightly, failure to think deeply, failure to think at all are the great causes of social unfitness.

2. It is the function of the school to train for social efficiency. Social efficiency must be based upon thought. Much of this thought must be ethical in character. It should be directed by the right people, at the right time, in the right way.

3. Professional schools, departments of education in universities, and superintendents should strongly emphasize these points.

RECOMMENDATION

Since it is a function of the school to set standards of conduct for the citizens of the state, and since incidental training for right conduct is too uncertain a method to be generally accepted, therefore, definite training for social efficiency should have a place on the school program of each school in our country.

THE SCHOOL AS AN INSTRUMENT OF CHARACTER-BUILDING

I. REED B. TEITRICK, DEPUTY STATE SUPERINTENDENT OF PUBLIC INSTRUCTION HARRISBURG, PA.

Every view of life proves the pressing need and the paramount importance of moral training. It is a subject not easy to deal with. It bristles with difficulties both real and apparent and it is certainly worthy of the earnest thought of the broadest and best-cultured minds. When in the midst of learning, dishonesty and immorality flourish, not because of education, but in spite of it; when we find men weak and irresolute where they should be strong and purposeful; when we find hands untrained to practical uses, minds unable to grasp the common wants and rights of existence, hearts in which high ideals of character and strong impulses toward true usefulness are overswept by indifference and selfishness, the need for increased effectiveness in moral training becomes imperative.

Whether we consider essentials for character-building or observe petty weaknesses of society and flagrant violations of moral and civic law, we are lead to form these conclusions:

First, more effective moral training is imperative. Unselfishness must supplant greed for gain, purity in politics must supersede political intrigue, "honest work for an honest wage" must succeed inefficient service and doubtful business methods. The need of today in the physical world is not so much for giants as for strong, well-developed normal men. In like manner in the moral world we do not so much need heroes as men and women whose moral vitality rests upon plain living, high thinking, and righteous doing.

When we inculcate right ideas of life and labor, and a sound morality in what are termed the small affairs of life, we have laid the cornerstone of true character-building.

Second, citizenship demands moral qualifications. Personal morality is the morality of the state. The annals of a nation portray the virtues and vices of the mass of its people, and its rise or retrogression is measured by the moral standards of its citizens. The republic in its plan of self-government recognizes the necessity of individual moral excellence. Government by the people can reach its *summum bonum* only by perfecting manhood and womanhood. The secret of progress for the state, the key for all problems, the solution of all vexed questions lies in lifting up the individual.

It is not enough that the voter, juror, or public official be efficient and intelligent, he must possess the moral fiber which makes him unswervingly resolute and unimpeachably honest.

Third, the state has a right to expect moral training from all of her institutions, but especially from her public schools. Except the church, no public institution can be compared with the public school in its influence on the character of the people. The public school is the state's chief instrument for character-building. Future citizens work together side by side on the same footing in the public schools and are governed by common laws. A proportionately large number of the hours of youth are spent in school and childhood impressions are well-nigh indelible.

It is true that the primary object of the school is intellectual development and training, but much harm would result if brain were fed and stimulated while cunning of hand was neglected and heart and soul were left to starve.

The chief responsibility for moral training during youth undoubtedly rests with the home, but the school forms an invaluable adjunct in supplementing and fostering such culture.

We should observe the distinction between moral training and moral instruction, since moral instruction is only one of the avenues of approach to moral training. Direct moral instruction in school work is necessarily limited but the moral training afforded by the public schools is practically unbounded.

The public school, as an instrument of character-building, achieves results in two ways:

First, it may give moral instruction. Altho we recognize the truth that morality is not developed by precept or mere repetition of a code of ethical laws, it cannot be questioned that moral instruction in the public schools when timely, earnest, and possessed of living interest is most helpful in forming right habits of thinking, doing, and living. Such instruction must possess the quality of reality to be effective. It must yield both inspiration and strength to appropriate living truths. Morality held in theory is like seed without the sowing, ripening, and harvest. Whatever touches the heart influences character. "As a man thinketh in his heart, so is he."

Vast wealth of material for moral instruction is found on the pages of history and biography, and in the literature of song and story. The rise of the righteous, the triumph of truth, the power of the patriot, the devotion of lovers of liberty, the victory of the just, the tales of physical bravery and moral courage as depicted on the pages of history are all full of moral inspiration. In biography the youth may walk with the world's choicest spirits and be inspired and ennobled by the records of their works and lives. When we consider the man, Lincoln, the fact possesses rare significance that as a boy his constant companions were the men and women of the Bible, *Pilgrim's Progress*, Shakespeare, and Plutarch. Patriotism, devotion to duty, fidelity to trust, sacrifice of self for others—all that belongs to an intense and vital spirit urged on by great desires and high moral purposes speak to the boy or girl from the records of the world's worthies. The literature of song and story is a great storehouse of food for the nurture of character, and its garners are ever overflowing with legends of the great and good deeds of all ages. Moral teaching fed from such reservoirs as these must be fruitful and will be satisfactory.

Second, it gives indirect or incidental moral training. Perhaps the school performs its highest mission as an instrument of character-building in the incidental training in morals which it affords. The common school is the best possible image of society. It is a larger edition of the home and a smaller edition of the nation. The general tone, atmosphere, and management of the school should show proper regard for moral principles and be such as to promote individual morality. Environment and atmosphere are more powerful than formulated ethics. Mental images are being formed continually; and it is not so much what is said but what *is* that leaves an indelible impression upon the child-mind. In this connection it should be observed that a good teacher is the important factor, a teacher whose personality walks beside the pupil pursuing his homeward way, sits beside him at the evening meal, pervades the atmosphere of the whole evening and draws him back in the morning with irresistible force.

Not only does the general environment of school life build and strengthen character but the actual work of the school is most helpful in this direction:

1. *Thru the branches taught.*—Not only does the mere effort required to do mental labor yield valuable moral discipline but each branch in the school course develops and strengthens certain moral attributes. Every operation in mathematical work enforces the unchangeable principle that a certain line of action is bound to bring certain results; that there is no way but the right way. This is one of the most necessary and valuable lessons in the whole field of moral culture and corresponds to that inviolable law of the spiritual realm, "whatsoever a man soweth, that shall he also reap." Reading unfolds to the youthful mind the inspiration of the vast and varied realm of literature. Grammatical work cultivates the power of making close distinctions and logical inferences. Geography gives broad views of peoples and industries and indicates the natural causes for the lives of nations. The nature of physiological instruction is such as to teach purity in the care and use of the body and reverence for its Maker.

2. *Thru the mechanical work of the school.*—Whatever develops the personality of the child develops character. Writing and physical exercises are chiefly valuable in this line in so far as they give control of the body and direct self-activity. One of the ultimate aims of drawing is to open the mind to the beauty and significance of nature and art. Manual training aids in developing self-reliance, self-control, and a sense of power. These are elements that tend to produce strong character.

3. *Thru discipline.*—Public-school discipline is a potent factor in character-building inasmuch as it tends to establish right habits. The general organization and management of the school are such as to make such habits necessary. The mere regular and prompt attendance at school is in itself a valuable training. When there are added to this such other school requirements as system, industry, obedience, self-reliance, and regard for the rights of others, what a mine of moral training is revealed!

For character is ultimately a habit; its base rests in countless small achievements, and it rises into noble and towering strength because numberless victories are wrought into it, as the cannon captured from many foes were melted and molded together to make the majesty of the Vendome Column in Paris.

Morality means strength and self-control, courage to defend the weak and to stand alone for the right, unflinching devotion, transparent truth, stainless honor. We cannot lay too much stress upon the imperative necessity of using and keeping pure the fountain from which such far-reaching influences flow.

II. HENRY G. WILLIAMS, DEAN OF STATE NORMAL COLLEGE, OHIO UNIVERSITY, ATHENS, O.

The words "instrument" and "building" found in the subject assigned for discussion at this hour indicate clearly *means* and *end*, or means of production and the resulting product. The implication is that *one* of the functions of the school is to produce character. I wish to go a little farther and say that the *one all-inclusive function* of the school is to produce character. It is character, in its true sense, rather than the school, that is the great necessity in our moral, social, and economic life. The school is simply *one* of the means to this end. Given: A rational creature in a rational world, with an affinity of the one for the other, and time in which this rational creature may learn to know his environment, and an education will result, even without the school. But the school has been organized to aid and direct the individual in his search for such truth as will make his life efficient in its contribution to the sum total of the world's happiness and goodness; to enable him in life to do well some part of the world's work and in death to bequeath to the race some heritage of accumulated wisdom and some improvement of the world's ideals of individual and civic righteousness.

The one fundamental and ultimate aim of education is the production of a vitalizing, propelling character that shall be the exponent of the world's highest thought and achievement in its intellectual, moral, physical, ethical, and aesthetic efforts. We have been too prone to practice our profession as tho the work of the school were to be confined to intellectual achievement alone. This is the greatest weakness of the school today. Our education has become so exclusively intellectual in its scope that we have educated too many of our boys and girls away from the domain of the manual arts. If the world's work is to be done and civilization is to be advanced thru the doing of this work, we must *educate and train* men and women for social efficiency, to do their work and not leave it to the hands of the untaught, the indifferent, the time server, the non-idealistic, the individual without aspirations, the pessimistic fatalist. Man is something more than a fated fact among the blind forces of nature. Every individual possesses the consciousness of an unrealized self, and such a consciousness is as natural as the power to think, but it must be appealed to early in life and so encouraged and trained that its possessor will early realize that *he* is the architect of his own ideals. Here is a most important sphere of activity for the school. Two goals should be set up for the pupil to reach: one goal he can be led to see clearly; the other lies hidden for a time beyond it. The first goal represents the immediate aim of education—the mastery of the lesson for the day, the successful completion of a subject, or of a prescribed course of study, the possession of a coveted diploma, or the assignment to a long-sought position as the result of patient, diligent preparation. But the holder of such position has not yet begun to do the world's work. The guiding hand of the teacher is no longer felt upon his shoulder. The man with the diploma and the position is now called upon to initiate and to direct his own course. The first goal has been reached and he is now ready to pass it, but what shall be his guide, his inspiration? He finds he needs to have another goal set up before him. That goal is character—the ultimate aim of education—and if the two aims, the immediate and the ultimate, are not in direct line from the point of starting, there is something radically wrong with the system of education under which he was trained to reach that first goal. The way to run a straight line across a field is to have at least two stakes ahead of you, then keep yourself and the two stakes all in one straight line, and keep going. The ultimate stake must be over in the next field, a point which you may not expect to reach, but a point whose location is just as necessary for your guidance as any other goal in the line. That ultimate stake, or goal, is the ideal, and is an ever-advancing goal. It is too sacred to touch—you cannot reach it, altho you may reach the place where it was. It advances as you advance. It lures you on, and if the ideal is a well-rounded, efficient character, you will always find it straight ahead. There is entirely too much zig-zagging in our methods of instruction. If our methods are sound, they will always take us straight ahead toward that great ultimate goal, character. I contend that there is little value in subject-matter alone unless by its mastery the child or the student becomes more efficient in doing something the world needs to have done. There is today much extraneous matter in the curriculum. Some of it affords merely intellectual training or discipline; some of it is nothing but mere rubbish. Unless subject-matter not only affords opportunity for mental discipline, but arouses the dormant self-hood of the child, and, as Bishop Huntington once said, "rings the rising bell in the dormitory of the soul," it has but little place in the curriculum.

Character is a growth, not a spasm, and the school must supply many of the conditions of such growth. Nothing that has the power to grow can grow *by* and *of* itself. Growth comes from within and is not imposed from without, but the conditions of growth must always be supplied by forces entirely outside of the thing that possesses the power to grow. To the seed containing the latent possibility of growth must be supplied light, heat, moisture. But all these could not put life into the seed or change the nature of that life. So it is with the child. The school must supply conditions of moral, intellectual, and physical growth. With our changing conditions in the social, political, and industrial world, we find the home is not able to give the physical and moral training it once gave. We cannot depend upon the home or upon the church to do all for the child that he must have done for him in the way of moral training. The public school *must* shoulder a large general responsibility in this direction, and thru its ethical and aesthetic training, do for the child what the home primarily *ought* to do.

Not only must the school assume much responsibility for moral instruction, but for instruction in the manual arts as well. The days of the apprentice have passed. The days when each home was a factory are gone. By the passing of these two institutions, the child has lost much of the heritage of the fathers, and is sent to school to have his intellect trained and his hands neglected. By such a system we are educating our children away from the domain of manual labor and the sense of honor in toil. The world's work must be done, and it ought to be done by those whose minds as well as hands have been trained. Unskilled and uneducated labor is a great curse to any country with an ideal. If character means a well-rounded development for efficiency in living, then our children need not only to *know* things but to know how to *do* things. Character means more than negative goodness, and more than mere morality. There are many people who live a sort of goody-goody life who do not possess much virility of character or steadiness of purpose. They are not the people who do the world's work. Those who have been taught to use their hands, to honor the worker and praise his work, are people who live a positive efficiency. They can build better cities than their fathers did and make better bread than their mothers made, because they have a sounder, more wholesome character than those who have been educated to ignore the worker and despise his work. The great masses of laboring people in this country do not want your *sympathy*, but they do want your *interest* and confidence in the *work* they are doing.

The public school must not educate the boys and girls of our land away from manual labor, but educate them *into* it. The boy who is already on the farm should be so educated that he may become a better farmer than his father ever was. Agricultural education must become an integral part of our system of public education. Manual training and home economics are more vitalizing in the production of character than cube root or the split infinitive. Character is a growth, and no man ever grew good over night—nor bad, either, for that matter. The things the boy thinks and does and sees work silently but fatefully to shape his character. *Knowledge* of the right alone will not save a man. His will and his hands must be trained to *do* the right. The personality of the teacher will also do as much as the curriculum in the building of character.

We were told yesterday by President Roosevelt that our work is a most important one, and in these words: "It is idle for any man to talk of despairing of the future of this country or feeling unduly alarmed about it, if he will come in contact with you here, and with the forces that you represent." And also in these words in that memorable address yesterday: "While your work in training the intellect is great, it is not so great as your work in training character." Let me close with the words of the same great exponent of civic righteousness, used by him in an address to the National Education Association on a former occasion:

> The most characteristic work of the Republic is that done by the teachers, for whatever our shortcomings as a nation may be, we have at least firmly grasped the fact that we cannot do our part in the difficult and important work of self-government, that we cannot rule and govern ourselves, unless we approach the task with developed minds and with that which counts for more—*with trained characters.*

THE SCHOOL AND THE FAMILY

MRS. JOHN M. GLENN, BALTIMORE, MD.

(*An Abstract*)

Mrs. Glenn gave an interesting account of an examination into home conditions of school children in South Baltimore, Md. Lack of sufficient and proper food and of home care was found to furnish abundant reasons for failure to make progress in school. The examination showed that the family, not the child, is the unit, and that the family and the child must be educated together. The school, the church, the charity agent, and the health department must co-operate to educate the child as a member of the family.

There is great need for "parent-teacher associations" in every city and in the rural communities as well; in the former to mitigate the hardships of congestion; in the latter to relieve the isolation by bringing together the parents with the teachers and children in helpful social intercourse.

The great problem of child-labor, which is as serious in the country and the small town as in the city, can best be solved thru parent-teacher associations in which the real needs of the child and his preparation for life are freely and fully discussed. In this way, teachers come to find out what is in the home and often to find what is really strong and good and ennobling. There should be a very positive attitude on the part of the teacher and the school toward the social life in the home and the community.

School gardening associations and schoolhouse improvement clubs all work for the betterment of the community, and these societies may find opportunities for their work in every school, whether in city or country.

A PLAN OF MORAL TRAINING

MISS JANE BROWNLEE, EDUCATIONAL LECTURER, NEW YORK CITY

[*An Abstract Prepared by the Author*]

This plan is not a theory but has been in use in one school for ten years, in another eight, and for shorter periods in other schools thruout the east, west, and northwest. It has ceased to be an experiment.

Its purpose is twofold: to awaken in the child a consciousness that *he is,* and that he *has* a mind and a body; to arouse in him a sense of responsibility for the care of his servants.

Five or ten minutes are to be consumed at the opening of the morning session, the thought to be alluded to during the day as opportunity offers.

Thru questioning, the child is led to tell about his body: "Why do you eat food?" "Suppose you refuse to eat, what then?" "Can anybody eat your food for you?" This is the beginning in the child of self-responsibility. He learns that here is something he must do for himself just as long as he lives on earth, and very much of his success and happiness in life depend upon the way he does it.

In much the same way, he is led to see that the mind must be properly fed, lessons forming the greater part of its food.

He is then led to consider the real child, the higher self, who is master of the two servants, body and mind. The food of the real child is thoughts. Just as nobody can eat his food, or learn his lessons for him, so no one can do his thinking for him.

A subject for thought is selected, and is held by the entire school during the month. The child is taught how to put this particular thought into practice in home and school. Among the subjects used are kindness, obedience, courtesy, regard for the rights of others, truthfulness, honor, loyalty, and courage, physical and moral.

ROUND TABLES

A. ROUND TABLE OF STATE AND COUNTY SUPERINTENDENTS

TOPIC: COUNTY SUPERVISION

I. *WHAT A COUNTY SUPERINTENDENT SHOULD KNOW*

J. W. OLSEN, SUPT. PUBLIC INSTRUCTION FOR MINNESOTA, ST. PAUL, MINN.

It is generally conceded that the city needs for school superintendents men of broad general scholarship, special professional preparation, executive ability, and experience, varied by actual work along different lines of school life. Now, tho the fact is not so generally conceded, the country district needs supervision quite as scholarly and efficient. The county superintendent should be a man of scholarship just as broad, preparation just as professional, as that of the city superintendent, and should, moreover, be a man having an intimate acquaintance with country schools and their needs. The man who would be a county superintendent worthy the name, therefore, will take steps to equip himself with the knowledge implied by a liberal education and professional experience, plus that knowledge which is the result of practical contact with rural-school conditions.

Whether we impart knowledge simply for its own sake, or as a means to the end of right conduct in life, the imparting of it and the desire to get more of it is the largest concern of our schools. Huxley suggests that knowledge is useful in proportion as it tends to give people right ideas, which are essential to the foundation of right practice. Only temporarily and accidentally can the schools of a county get beyond the ideals of its superintendent. Time and again it has been said that "the function of supervision is to realize the ideals of the supervisor." How can he properly frame a course of study that will meet the general and the individual need unless he himself possess such knowledge of science, mathematics, literature, history, philosophy, as will give to his vision a comprehensive survey of the vast field of education, making clear the relation of the part to the whole, the whole to the part, as will give him wisdom to select from this store that which will best suit those for whose education he is, as supervising officer, directly responsible? His personal equipment must be acquired by observation and experience, be assimilated thru a process of hard, conscientious thinking. Its value to those dependent on him will be measured by his intelligent, common-sense application of it to the problems confronting him. He must know, not only things, but men—and children, the coming men; must have an ideal ever before him of the manhood and womanhood into which he would have the boyhood and girlhood under his care develop. This means practical child-study, practical man- and woman-study. A friend of mine has given an excellent address on the subject, "The Best There Is in the Child; How to Find It; and What to Do with It When Found." It is part of the work of the county superintendent to find the best there is, not only in every child, but in every man and woman of his parish, and to use that best for the highest good of the whole.

He should realize that the complex civilization of the twentieth century demands more of the school than ever before; but his professional knowledge must be so rooted in the principles of sound pedagogy that he can distinguish between the fad and that movement which has in it the elements of life — which will be of real and permanent value. As the result of his own experience, he should know what is education, what is culture. He must have learned that he cannot give save from his own supply; he cannot arouse intellectual ambition nor kindle the spirit of social service, unless he have the love of knowledge and of humanity strong within him. Only life begets life. He should know that only by superior qualities of head and heart can he inspire his teachers and officers with that confidence in him which will result in cheerful following of his lead toward the larger education. To be more specific—he should, as soon as he has the superintendency in view, to the best of his ability familiarize himself with general conditions in his county, so that his energies, after he goes into office, may lose no time in directing themselves toward certain special improvements.

He should know and be able to plan for the best in rural-school architecture, including heating, lighting, ventilation, and sanitation, so that the buildings for which he is to a considerable extent accountable may be models of usefulness, comfort, and beauty. He should be able to guide in the purchase of libraries, textbooks, and apparatus. He should know the difference between good teaching and bad—how to praise the good so that it will become better; how to transform the bad to good.

He should so know the school laws of his state, with the opinions of constituted authority as to their interpretation, that his advice in matters of difficulty will be simple, direct, and easily followed. Both in personal interview and in public address he should be able so to present the needs of his schools that parents, officers, and taxpayers will not fail to appreciate their privilege of immediate and future reform. And he should know not only what is required for his own county, but the needs of the entire state, so that he may be in a position to co-operate with the department of public instruction and other central authority in creating the best public sentiment and in securing necessary legislation.

As time passes and he learns the general need, he will also acquire considerable knowledge, more or less intimate, not only of the individual teachers of his county, but of the individual children, with their home surroundings, helpful or hindersome. If he is a college man—and the time is coming when the county superintendents will be college men—he will be in all the better position to make a plea with the parent for the broader education when the fettered abilities of the child cry out for it.

He must know not only how to keep aloof from local animosities, but must have the wisdom of the serpent and the harmlessness of the dove for the healing of neighborhood strife. Retaining his own independence of character, he must at the same time know how to be "all things to all men." Tact does not necessarily mean insincerity. Besides making the machine run smooth, oil has a beneficial influence on the machine itself. At the same time, those county superintendents so unfortunately situated as to be in states where re-election depends upon the whim of the people should know that they cannot be leaders, cannot do their best work, without that courage that does what conscience-inspired judgment dictates, regardless of whether it wins or loses votes.

The county superintendent should be a real forerunner of progress. In an excellent address on supervision, Superintendent Babcock, of Oil City, Pa., said:

"Confronting every human being is the unknown world. To comprehend this world in terms of its own thought is the task fate sets for every soul."

In this suggestion as to the captaincy of the individual soul lies the suggestion as to the infinite possibilities of our work—a work that does not terminate

"When the lessons and tasks are all ended,
And the school for the day is dismissed,"

but is taken up in continuous session in the university that knows no graduation.

Those who were present at the conference of a year ago will perhaps remember my pointing out that, under the prevailing system of general election, we cannot hope to attract to and retain in the county superintendency our best men and women. It is to be hoped that Commissioner Draper, Superintendents Gunnels, Nelson, and others engaged in heroic efforts to raise the country superintendency to the dignity of a profession, learned, able, permanent, and affording chance of promotion, will accomplish that for which they aim.

II. *HOW CAN TRAINED COUNTY SUPERINTENDENTS BE PROVIDED AND HOW SHOULD THEY BE SELECTED?*

FASSETT A. COTTON, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, INDIANAPOLIS, IND.

I. DUTIES OF THE COUNTY SUPERINTENDENT

The county is one of the important units or divisions in the state government; in some respects the most important. Being such a unit, it naturally determines many things within its borders. The county is responsible for its schools and their proper organization, the principal work of such an organization being to bring about equal opportunity for all children.

It would probably be impossible to find anyone who would maintain that the country child should not have educational opportunity equal to the best that is provided in the state. The claim for equal educational opportunity for all would doubtless receive universal sanction, and yet educational opportunity is so unequal in this country that startling injustice is done to many of our children.

With short terms and poor facilities, with inexperienced and often poorly prepared teachers overburdened with classes, and with little supervision, the country school, in its effort to train the children for country life, has not been able to compete with the city school in its effort to train the children for city life. Put six months, and in many instances a shorter term, over against nine or ten months; put a poorly located, poorly heated, poorly ventilated, poorly equipped single-room schoolhouse over against a centrally located, well-built and well-equipped modern building; put a reasonable distance, with good walks or streets, over against a long distance with poor roads; put well-qualified, experienced teachers, with daily supervision, over against meager qualifications and inexperience; put the richness of social life, with libraries and lectures, over against a dearth of these advantages, and the real situation may in a measure be understood.

Of all the hindrances that keep the country child out of his rights the poor teacher should be placed foremost. The school exists for the children, and the school can be no more than the teacher. With a wide-awake, well-prepared teacher even the shortcomings of a limited term with poor equipment would be reduced to the minimum. Short terms, single-room schoolhouses in isolated districts, many classes and poor facilities, with good teachers, are infinitely better than the finest equipment with incompetent teachers. In the last analysis poor teaching is the chief cause of unequal educational opportunity. The supreme need, then, is a sufficient number of well-trained teachers to take charge of all our schools. It might well be contended that with such teaching as we have in many schools at present the terms are long enough and the provisions are good enough. With a real teacher in each schoolroom in this country for four or five years further argument for better things would be unnecessary.

The supreme work of the county superintendent, then, is to bring about better conditions in the country schools—to insure the country child educational opportunity equal to the best that is provided in the state. In light of the above discussion the duties of the county superintendent fall naturally under the following heads:

1. To unify the work of the county in education, including such questions as—

a) Keeping constantly before the people definite aims and methods.

b) By indicating well-worked-out courses of study for both the elementary and secondary schools.

c) By perfecting educational organizations such as township (town) and county institutes, county associations, reading circles, industrial clubs in connection with the public schools for boys and girls.

d) By bringing about close co-operation between the county farmers' institutes and the teachers of the county.

Notice that the county superintendent is to make the work a unity and not necessarily to bring about complete uniformity. He is to encourage individuality in the teacher and to commend always any power of initiative. If the work is made so uniform that the system is a machine and the teacher is merely a puppet, then it would be better to have no county superintendent of schools.

2. To set the pace or standard in educational progress—

a) By skillful leadership for a very large majority of the teachers.

b) By being a sharp goad for some of the teachers—a very small majority perhaps. Teachers need inspiration. The mere presence of an educated, professionally trained, responsible leader with the license power, is very valuable. In some states the examination of all teachers is placed with the state instead of the county superintendent. The work of selecting first-term teachers should be placed in the hands of the county superintendent, who is constantly mingling with the teachers and examining the work of the children in the upper grades of the public schools, and who, on account of such work, is better able to select beginning teachers. A county superintendent who is a close observer and a good judge of human nature can select bright boys and girls from the seventh and eighth grades in the public schools and encourage them to prepare to teach school. He can watch their careers thru these grades and the high school and from these he can select his teachers with much more intelligence than it is possible for a State Board of Education or State Superintendent of Public Instruction, or any other state authority so far removed, to select them. The county superintendent, then, should license all first-term teachers. The state should examine and license teachers after they have had one year's experience, refusing always to license anyone who has not the endorsement of the county superintendent or of the proper city or town superintendent.

3. To supervise: that is, to set up some pedagogical or professional standard as in city and town systems; to correct errors, and to suggest better ways. In other words, to take to the teachers sympathetic, constructive supervision. In my judgment a superintendent's success can be determined as largely by the number of good teachers he makes out of poor material as by the number of teachers he can dismiss from his system on account of poor work.

4. To aid in the choice of teachers, both in granting licenses and in locating teachers. One of the most important duties of the county superintendent of schools is that of helping minor school officials to select teachers for the several schools under their charge.

5. To make the standard of the county as high as the best school in the county, thus making the county rather than the township (town) or the district the unit of efficiency.

6. To keep the schools of the county in close touch with the best thought in the outside educational world, and more particularly in the state.

II. CHARACTER AND EDUCATIONAL QUALIFICATIONS OF THE COUNTY SUPERINTENDENT

It goes without saying that the county superintendent of schools must have broader scholarship, larger professional training and greater zeal than any of his teachers. He must also maintain as high a standard of morality as his teachers. In fact, the standard should be higher if any difference. The county superintendent is chosen from the ranks of the teachers and can be reasonably expected to uphold the honor and dignity of the calling. Any question here probably hinges upon what the standard of morality of the teacher is to be. In discussing this standard it must be remembered that the real teacher is always more, much more than a mere instructor. While consciously imparting knowledge, the teacher is unconsciously teaching infinitely more than the mere facts in the subject in hand. Imitation is one of the strongest factors in education. Unconsciously the children take on the physical bearing of the teacher, his manner of speech, his mode of dress, his ways of thinking, his very character. The teacher becomes the model of the children whether he will or no. It is not sufficient then that he be a good instructor merely. He must possess that subtle something called personality which by its very presence teaches.

Recognizing this as true, the people, almost as a matter of fact, have come to set up a higher standard of conduct for the teacher and superintendent than for others. And this is perfectly proper. In our school work we set up high standards of character. In history, in literature, in physical culture, every day we are placing before the boys and girls the loftiest ideals of manhood and womanhood.

The county superintendent of schools occupies an office of highest importance and dignity. No official in our school system, or in any other department of our state or county government, has it in his power to do so much good or so much harm, for he is dealing primarily with teachers, many of them young both in years and experience, and with school children. The choice of a man for the position should mean that the best teacher in the community has been promoted; that he is not only teaching boys and girls both by precept and example, but that he is a leader of men and women, a teacher of teachers. In order to be this he must have scholarship equivalent to that of a full four years' course in a standard college, and professional training equivalent to that in the best state normal schools in this country.

The best county superintendents of schools have done notable work in building up high schools, in erecting modern school buildings and in spiritualizing country life by establishing consolidation and by introducing agriculture into the high schools and consolidated schools, and by organizing corn clubs for boys and cooking and sewing clubs for girls. Such work has enlisted the farmers and the best people everywhere in school work and has made them feel that they have a part in that work. Perhaps the best work of most of the superintendents is in looking after the individual teacher. Many of the county superintendents in Indiana have done notable work during the last five or six years. For the last three years one county superintendent has printed his plans for the year and has explained fully at the preliminary township (town) institutes, one in each township (town) in the county, exactly what is expected in reading, writing, history, geography, industrial work. etc. This enables him to expect definite things when he visits the teachers later.

At the close of the first week of school he requires a report. This report calls for the names of pupils and enables the truant officer to know from the superintendent's office at the close of the first week of school all pupils who are not in school. It calls for the program, and enables the superintendent to secure music and drawing and industrial work in the high schools, and history and language in the lower grades. He writes many letters to his teachers about their programs and other phases of school organization as soon as this report is received. The report also calls for the condition of the building, and supplies needed, and enables the superintendent to "go after" the school trustees for the things needed at the beginning of school He seldom fails to get the needed supplies when he goes to the trustees in this way.

This superintendent's visits to the schools are not mere social calls. If he finds a teacher below par in any respect, he tells him so frankly and agrees to see him again within a short time. In writing about his work recently this superintendent said: "Yesterday I visited a teacher who had so improved in order and discipline that it did not seem to be the same school." On the other hand, this superintendent stands for the teachers' rights and interests with his trustees until all know that he is always for the teacher, when the teacher is right. When he criticizes his teachers he invariably suggests methods for improving their work and in such spirit as to make them feel that he is their friend and is ready to give them any promotion they are ready for. As a result of this relation the teachers consult with their superintendent freely and tell him of their difficulties as they arise.

This superintendent makes use of the township (town) institute which affords him an opportunity to follow up the things that he has seen while visiting schools. In these meetings he talks over the work frankly, especially mentioning all examples of superior teaching or discipline, and urging the other teachers to visit these stronger teachers. This superintendent is a graduate of the Indiana State Normal School and of a university, having taken his master's degree in the latter institution.

III. THE GREAT PROBLEM IS THE PROBLEM OF EFFICIENCY

In order to provide trained county superintendents in every county, it will be necessary for the several counties to pay larger salaries. There is no other way to secure such men. In the present agitation all over this country for better things in education there are a few fundamental propositions that teachers, citizens, and legislators everywhere need to keep in mind if anything is to be accomplished. The first of these, and the one that overshadows and conditions all the rest, is that we have come to a stage in educational affairs in which the question of efficiency is involved. It is not a money question at all. It is not merely a question of securing more pay for teachers and superintendents. That is a secondary purpose. Primarily it is a question whether we can any longer, under present conditions, secure and maintain efficiency in our schools. The worth and progress of any calling depend upon efficiency. Its rank and dignity are determined by the competency of its men and women. The professional plane of any calling depends finally upon the quality of its own members.

Teaching is not yet a profession in this country. The salaries are so low that teachers cannot make extensive preparation for the work. As a result there is practically no professional test and the scholarship requirements are very low. Despite all this it ought to be said that thousands of competent men and women have deliberately chosen the calling and have prepared themselves to be teachers, superintendents, and college professors, and are doing efficient work; but the existing conditions make their work difficult, and even call their efficiency in question so that the public is in danger of losing their services sooner or later.

IV. EFFICIENCY IN SCHOOL WORK DEMANDS COMPETENT MEN AND WOMEN

So we have come to a time when something definite should be established in the teacher's work. There is a problem of teaching or there is not. If there is such a problem every teacher who takes up the work should have studied it. Teaching should be put upon a professional plane. Certain definite requirements should be fulfilled before any one is permitted to teach school. That is, a standard of efficiency should be established and maintained. There should be distinct tests of personality, scholarship, and professional ability. The General Assemblies of the several states can help the cause of education and materially hasten the day of larger efficiency by eliminating the unprepared and incompetent from the ranks of the profession.

V. COMPETENT MEN AND WOMEN COMMAND GOOD SALARIES

But at the same time the state sets up new standards of efficiency for teachers it must hold out larger inducements in the way of salaries. The compensation for teaching has always been inadequate; and while it is true that real teaching cannot be paid for in dollars and cents, we have come to a time when the public must more nearly recognize its worth. The laborer is worthy of his hire, and the teacher is no exception to the rule. Teachers hitherto have seemingly been afraid that the public would think they were teaching for money, and the kind public has saved them from this humiliating reputation. With the demands made upon the purse in keeping awake and alive to the interests of the school it has been almost impossible for men and women who have no other source of income to remain in the calling. Somehow the public has gone on demanding that teachers appear as well as other people, that they buy books and magazines, and at the same time the public has not concerned itself about the funds with which all this is to be done. It would probably be a revelation to many good people to know that the average teacher must stop to consider whether he can afford to spend five dollars for books which he really needs in his business. The teachers themselves have been altogether too modest in the matter. They have waited for the public to right their wrongs. They have not organized and gone after their rights. The teachers have permitted the public to fix salaries instead of fixing them themselves. And the public has drawn a distinction between what teachers and other people need to live upon. Here is a principle which teachers should insist upon—that salaries are not to be fixed for teachers, but for citizens for whom the public has a high regard.

It is probable that the public would consider it a great joke to talk about teachers living as well as other people. But why is not this the proper basis? Teaching is difficult work; it takes skill and brains and vitality. Why should it not bring as much as writing briefs, or dispensing medicine, or selling dry goods? Why, indeed! Simply because teachers have not demanded it. The remarkable thing about it all is that we have gone on all these years with such miserable pittances for salaries and have accepted them like so much charity. Let us say again that the question has come to be one of maintaining efficiency in our schools. And it must be borne in mind that increased efficiency, increased salaries, and increased funds must come together in the solution of this problem.

VI. INCREASED SALARIES AND HIGHER STANDARDS OF EFFICIENCY

Another principle ought to be kept in mind in considering this whole question, and that is that this is not a fight for higher salaries on the part of teachers. It is a struggle to maintain the present efficiency of the schools and a demand that the calling be put upon a plane that will make larger efficiency possible. To this end teachers want conditions established which will make merit the sole measure of tenure and pay. At the same time the pay is increased it ought to be made impossible for unprepared, incompetent teachers to profit by the increase. Otherwise the calling will be commercialized and cheapened Competent teachers are not begging; they are simply asking for their own. This point cannot be made too strong. While good teaching cannot be paid for in dollars and cents, poor teaching is paid infinitely too much. Anyone who knows anything at all about the schools knows that there are scores of teachers in this country who earn less than nothing. These should be taken off the payrolls, and it ought to be made impossible for them ever to get back. Any new provisions which would make it possible for them to continue and to draw larger pay would put teaching on a lower plane than it now is. And so every teacher who has the right view is insisting that a new standard of qualifications and increased pay must come together. More pay is not what we want, but larger efficiency and more pay.

Finally, to impose a new standard of efficiency without increasing salaries is useless. That kind of a scheme cannot deceive teachers any longer. They have finally realized that they cannot live on high ideals. With eggs at thirty cents and butter at thirty-five cents this has come to be a simple bread-and-butter problem. And so raising the standard of qualifications without increasing wages would simply make it impossible to fill the places at all. We have probably said enough to show that it would be unwise to raise the standard and increase the salaries without providing means for paying the salaries.

VII. HOW SHOULD COUNTY SUPERINTENDENTS BE SELECTED?

The second half of the question, "How Should They Be Selected," remains to be answered, and this is the most difficult part of the question.

The Indiana plan, with some slight modifications, is, in my judgment, a very desirable one. The township trustees in the several counties elect our county superintendents for a term of four years. The candidates are required to hold the highest grade state, common-school certificate. They are required to be actively engaged in school work.

VIII. SUGGESTED METHOD OF ELECTING SUPERINTENDENTS

Our township trustees are not required to possess any educational qualifications. This is the weakest point in our system. The system should provide for both a township trustee, and a school trustee; the former to look after the roads, ditches, poor, etc., and the latter to look after schools, assessing all property for taxation, etc. The two should elect a third man to be known as the principal of the township schools. This man should receive his certificate and qualification from the state and should be superintendent of the schools of the township, and a member of the county board of education. This county board so constituted should elect the county superintendent, and should not be limited to the county in selecting a man. The minimum salary should be $2,000.

The superintendent should be elected and then allowed to serve during good behavior.

I have mentioned some of the more important duties of the county superintendent; indicated his qualifications, and suggested the minimum salary for such qualification and services, and described the best method of electing this official. With some such standard of qualifications, duties, and method of election, the country schools of this nation would soon provide an education for all children as good as that provided in the best city systems in this country.

DISCUSSION

J. M. Guinn, department of education, Tulane University, New Orleans, La.—In discussion of the above suggested that the matter of preparation must in some sense be in doubt until the superintendent has discovered what problems are to be met. He further said: A school, therefore, for superintendents in which problems of such character may be discussed, scholarship kept alive, and the progress of the work brought to attention would be a great help in such cases.

The question was asked as to how many states elected their county superintendents by popular vote, and eleven superintendents indicated that this was done in their respective states. It was also discovered by question that seven of the states represented in the Round Table require the county superintendent to hold a state license.

State Superintendent Aswell, of Louisiana, stated that in Louisiana the county superintendent is selected by the county board without regard to the section of the state or county from which he comes. Politics exert but little weight in his selection, and efficiency is considered the chief qualification.

State Superintendent Stockwell, of North Dakota, gave his hearty indorsement to the statements made with reference to the removal of the office of county superintendent as far as possible from political influence, but expressed the opinion that this was hard indeed to do. In this statement he found a hearty second in State Superintendent Ackerman, of Oregon.

State Superintendent Nathan C. Schaeffer, of Pennsylvania, stated that since 1854 county superintendents in Pennsylvania had been elected triennially by the school directors of the several counties, and that the state superintendent was authorized to pass on their qualifications. The salaries of the county superintendents in Pennsylvania range from one thousand to eight thousand five hundred dollars, and many of the superintendents have held office from twelve to twenty years. The office in his state is non-political; he himself has served nearly twenty years under various political régimes. Popular election is the way not to be followed. Dr. Schaeffer also objects to the stressing of the expert idea, as experts are ordinarily developed by years of experience.

STATE SUPERINTENDENT H. A. GASS, of Missouri, stated that local option prevailed in his state with reference to county superintendency; that in fourteen years only twenty counties had adopted the plan; in the other counties the office of county commissioner obtains. He expressed the opinion that the method was a failure.

STATE SUPERINTENDENT F. G. BLAIR, of Illinois, asked the following pertinent question: How can a good superintendent be retained in office, if politics be allowed to enter into the election? The answer to the same was by common consent deferred indefinitely.

III. *WHEN INSPECTING SCHOOLS, WHAT SHOULD A COUNTY SUPERINTENDENT SEE AND DO?*

G. G. JOYNES, COUNTY SUPERINTENDENT OF SCHOOLS, ONANCOCK, VA.

As a summary answer to this, I would say he should see all that is wrong and set about to right it. This answer assumes that a county superintendent of schools is a trained man—educated, experienced as a teacher, and better if promoted to the office from the rank and file of teachers for general fitness and good sense, essentials necessary in this day of professional "line-up," if a man is to see what ought to be seen and do what ought to be done in school inspection. Let us suppose a superintendent is aptly appointed, and notice some of the things he should see and do:

First, outside the schoolroom. The environment should be carefully looked after. The fences and outbuildings should be neat, clean, and white-washed or painted. The grounds should be laid off—separate playgrounds for boys and girls—trees planted. On the girls' side arrange for plants and flowers, leaving room for such games as tennis and basket-ball. On the boys' side arrange for and encourage manly athletics. The superintendent should note the character of the games, and, acting thru his teachers, give such general direction as to do away with teasing or imposing on smaller and weaker pupils. The general conduct of the boys should be noted—whether polite and kind, or given to rowdyism and the use of bad language, cigarettes, etc. I once found a principal of a large grammar school in the habit of smoking cigarettes on the school grounds. His large boys left the school grounds a short way to do the same thing. Another principal of a high school, an A.B. from one of our strong colleges, joined his large boys during noon recess to go off behind a barn near the school grounds for a smoke, out of sight of the smaller boys. These were valuable teachers. It occurred to me that teachers in such close touch with the boys could lead them from this habit. The suggestion was made, the evil remedied. By seeing and knowing what to do, most of the playground evils may be removed and the introduction of pure and clean school athletics made easy. This is very important. Eight out of ten of our most serious troubles in the rural schools begin on the playgrounds. A superintendent can do much along this line to improve the general discipline and well-being of his schools. To do this, however, he must have tact and good sense enough to be in easy touch with his teachers. To sum up: a county superintendent should see all conditions and should set in motion among the teachers, the pupils, and the patrons plans most conducive to a good environment and healthy development of that which is best in the social life of the school on its playgrounds.

Second, indoors. The ventilation of many rural schools is so bad that usually this evil will force itself upon a superintendent, and should be remedied permanently. The general appearance of the room—its walls, whether bare or ornamented with pictures and best work of pupils; the blackboards and character of work thereon; the floor, if clean; the furniture, if abused; the general appearance of children, if tidy or otherwise; the general deportment of children, if orderly, attentive, studious, or the opposite; the general bearing of the teacher—how the teacher conducts the recitation, how the children recite. The daily schedule of exercises, which should be prominently posted in every school, should be examined to see that no time is lost, and that a proper division of time to each subject has been made. The grading and classification should be noted. Oftentimes new or inexperienced teachers make grave mistakes in these, causing much trouble, which the experience of a practical superintendent can at once relieve.

By all means, the superintendent in rural schools should look over the character-book. This book should be accurately kept by every teacher, open at all times to superintendent, trustees, and visitors. In it the name, date, and conduct of each and every pupil who has violated any school regulation or who has done something worthy of praise should be entered. The wisdom of this is far-reaching. It gives the pupil a written school record. This has been known to regulate the deportment of the entire school which before the introduction of this method was not at all satisfactory. A superintendent and his school board visited a rural school a few days ago numbering 180 pupils. The character books showed that one boy had been spoken to four times during the school session, and that over 90 per cent. of all the pupils had given satisfactory school deportment. In looking over this book, a few words kindly spoken by the superintendent has proven a great help to refractory spirits. In no case should a superintendent talk to the school too much. All talks should be short, pointed, and illustrate some truth or subject familiar to the pupils. Nothing should be said or done to disturb the friendly relation between pupil and teacher, or to unsettle the authority of the teacher. The real value of a superintendent is not measured by the length of his tongue, but by what he has the ability to see and his power to do.

Finally, what a county superintendent should see and do in a general way. When necessary he should visit the patrons to establish order and harmony and proper relations in the school work. To illustrate, a boy about fifteen years old not long ago moved into my division from New York City. He had been very refractory in the schools of that city, in fact came from a house of correction. He entered a rural school, taught by a very kind and even-tempered young lady. She had a great deal of trouble with him. He would not study, was continually in devilment of some sort; finally, one day, for rank insubordination she was obliged to suspend him. Before leaving, he cursed her, threw coal thru the window-panes, frightened the smaller pupils, and left in a rage. The matter was promptly reported. I called next day to learn particulars and see upon what terms a reconciliation, if possible, could be made, that the boy might have what he much needed—the benefit of a good school. I visited the home. The father was absent in New York at work. Found the mother, had a talk with her, and after some time she persuaded the boy to come into the room. Around the fireside I told the two what had been done, showed the teacher's side, showed the boy's side, and the boy's need. Tears fell from the mother's eyes as I tried to reach out in love for the heart and confidence of her wayward boy. Love and truth won. They will always win. A pair of handsome brown eyes, that at first flashed defiance and disobedience, softened into a kindly radiance, when the boy rose, and from behind his tears said: "Mother, I want to go and ask her pardon, and if she will take me back she shall never have trouble with me again." The boy's life was changed from that day. He stood to his word. The school was benefited by his transformation.

Again, rural schools outgrow their buildings. The superintendent should be quick to see this, and arrange to give the school suitable quarters. In my division this has occurred very often in the past five years. One school did this recently, when the district was already so much in debt it could not take up the case. I called a meeting of the citizens, presented the facts, appealed for aid to accommodate the children seeking the benefits of that school. At once the community organized, raised the money necessary, and the annex is now just completed.

In a section where there are a number of small single schools, the superintendent should study the situation and see when consolidation is necessary to improve conditions. In bringing this about he should not be too hasty, should not invite antagonism, but see what can be done and then do it. One of the first strictly rural, that is, out-in-the-country, consolidations arranged in my section was the Hunting Creek Grammar School. There were schools located at the angles of a triangle, not far from the shores of the Chesapeake. One a deserted, rickety, old store; another, a two-room, one-story shanty (could see daylight thru it anywhere); the third, an abandoned old church. I saw the necessity of consolidation. The trustees came into the plan, then a few of the leading citizens who could be relied on to help—these quietly looked about and found where a good lot about the center of this triangular section could be purchased; then a meeting of all the citizens of this section was arranged. This took place one afternoon in the spring on the lot selected for the new building. After explaining the school work in the old buildings and showing the possibilities of a good grammar school in a modern school building to be erected, I asked the citizens present to express themselves. When the vote was taken only one man in the whole crowd voted against the consolidation. The school board was present, and before the crowd left the lot was bought, and arrangements made to clear off the forest trees except such as were to remain. The following fall the school entered a modern, up-to-date, four-room building. Need I add that three years after, two pupils from this school sent prize work to the Jamestown Educational Exposition—one, the best map of his county; another, the growth and development of the Diamond Back Terrapin, a marvelous exhibit of nature-study work, which piece of work is now in the National Museum of Argentina, S. A., by special request of the commissioner of education from that country.

A superintendent should see the trend of public sentiment and turn it in favor of good schools. I have in mind a community carrying a school population of 413, located on an island in the Chesapeake Bay, nearly opposite the mouth of the Potomac River and fifteen miles from Onancock, formerly a part of Lee School District, all trustees living on mainland, none nearer that fifteen miles. There were two old stores and two old churches used for schoolhouses. The Legislature passed a bill allowing Tangier Island to be made a separate school district. A few of the leaders who had some influence with the Lee District School Board opposed this. Nevertheless, upon every visit to this community I called a public meeting and discussed some phase of the school work, usually closing my effort by showing the wisdom of having their school affairs in their own hands. In less than eighteen months the situation was ripe for a separate school district, the consolidation of the old schools into a central school at a cost for building alone of $5,500—this in a district where the district (township) tax amounted to $85, from a community of working people, living from the waters of the Chesapeake Bay by handling oysters, fish, clams, and crabs. They did not ask state or district for money, but every man, boy, and many of the women, and the young women contributed. One Saturday night the committee needed $500 on building fund. Sunday morning the pastor of the Island, who was heart and soul in the work, announced before preaching that $500 was needed to carry on the school work. He preached a sermon on education, and in a few minutes raised the needed $500. Tangier now has its own school board, manages its own business, pays the maximum school tax, and perhaps the finest school building on any of the many islands of the Chesapeake, from Havre De Grace to Cape Henry, stands on Tangier Island, a mere sand spit, one-half mile (widest inhabitable part) by three miles long. From the third floor, or grammar-school department, can be seen all the shipping of the great bay in daily transit for twenty miles to sunset side, and to the east twelve miles away to the shores of Accomack. Public sentiment put every dollar into this plant, and then equipped it from top to bottom. The boys and girls helped to pay for the desks. They saved of their earnings, in little barrels, spare pennies, and when the committee announced a "barrel-rolling" day for them to meet and open their barrels and hand in their contributions for school furniture, they had saved a bail-bucket full of pennies, in amount $166.71. One little fatherless girl of thirteen years, with ankles bare and brown, and dress worn, worked in her small flat bottom boat over the mud bars of Tangier Sound, catching and selling crabs, supporting herself and helping her mother, and without asking aid from anyone dropped into her barrel as her contribution for desks $1.36. Public sentiment crystallized and properly directed will bring results.

In conclusion, a superintendent should see the existing conditions of his schools—each school—cut out the evils and the useless, and be quick to put in the best methods, the safest plans, for a harmonious development of child-life, thus helping to usher in the era when our Republic shall be the world's acknowledged leader in all great achievements. This can best be facilitated by wisely guiding American child-life.

IV. *WHAT CAN THE COUNTY SUPERINTENDENT LEAD THE PEOPLE TO DO?*

LAWTON B. EVANS, SUPERINTENDENT OF SCHOOLS, AUGUSTA, GA.

The county superintendent is something more than a schoolman. He is a public officer in charge of a great trust. He should bear in mind that the school system belongs to the people, not to him. They constitute the court of last resort, and have the power and the right to abolish the whole thing if they want to. He has mainly duties, while everybody else has rights.

If the public is to be led, it must be enlightened. There is nothing in a school system that should be concealed from the people. It is fair to say that the schools should be kept before the people's notice and made conspicuous, not for the sake of the superintendent and his glory, but rather for the cause of which he is the exponent and trustee.

The public can be taken into one's confidence regarding plans for the future. They want to know why more money is needed, why better teachers should be employed, why new houses should be built. And knowing all these, the school funds are more readily enlarged. Do not be afraid of the people. Individuals may rant, but the great silent mass will stand by the man who is right.

The people should know the real intent and meaning of the modern school, and what is going on in other places, and what the masters think on great educational themes. Further than that, the home training and rearing of children, their habits, companionships, diet, and health are all facts of which the general public is ignorant. What training a child should have before he comes of school age, what should be expected of the home after he enters school, to what extent parents should help with the home studies, and co-operate with the teacher, and many other such topics open the way for the superintendent to lead the thought of his people toward a high, noble, and useful system of correlation of home and school.

It is only when the public is led to know what a really great school system is that the superintendent can count on them for great things. The first and greatest of all things is a willingness to vote heavy appropriations for school purposes. To advocate concealment of why money is needed is to invite suspicion and to court disaster. To prove one's case is generally to win it with an enthusiastic public. What the public wants is knowledge, and the reason why. There are few communities where the funds are withheld if only the superintendent be brave enough to state and maintain his propositions.

Every superintendent should have an ultimate plan and should work out his system in accordance. He should know where he is going and add a bit, year by year, toward its attainments. He should not work in the dark nor at haphazard, but definitely. He should announce his plan, and enthuse his people for its early accomplishment. Let him state boldly and definitely what his people need, and they will become as impatient as he is to see the results. Let him have an end in view, a complete plan, an aim, and if he be wise and enthusiastic, the community gathers momentum like water down hill.

One great purpose of the superintendent is to steer the schools clear of the rocks of county politics. I am reliably informed that in some places the politicians mark the schools as political spoils.

It is the duty of the public to let the schools alone, especially in the matter of selecting teachers. The most baleful influence upon the school systems of the country is the political influence of powerful men who seek to make the schools the source of support for indigent gentlewomen. They may be needy, they may be worthy, but it is a crime to support them at the expense of the public and of the children, if they are not good teachers—and this latter the superintendent alone should decide. How many weary battles have been fought for the schools, for the children, and for the public itself, by the superintendents of the land, who have bared their breasts to the storm and said they would have none of it, that the schools were for the teachers, and not for the kinfolk, or political allies, and friends!

So long as teachers are employed upon any other basis than that of schoolroom ability, the system is doomed to inefficiency. Everybody will recognize the truth of the statement, in his calmer moments, that school teachers should not be selected upon a basis of sympathy or political reward. Even the board members recognize that. Therefore, when there is no election pending, when the waters are calm and no instance is up, and nobody to be made an example of, then is the time to get the board to bind itself by formal resolution to do the right thing when the next time comes. Then when the crisis arises and a few wish to override the schools, there is a rule against it which the superintendent and the board may fall back upon to protect the schools.

The superintendent should have the power to prepare an eligible list of candidates from which the board agrees to elect the teachers. This power being granted, the superintendent should make it his earnest duty to find good teachers by all means in his power.

By all these means we see the duty of a superintendent toward the public may be stated in these propositions:

1. To inform them of what is going on in the school system, to conceal nothing, to have everything open to their view and comment.
2. To enlighten them regarding the nature of public schools, their mission and purpose, and the means by which any one community can be kept in line with the best community.
3. To hedge the schools about with every safeguard against the unworthy influence of the politician who wishes to use them for his own benefit, and to protect them against sympathetic men who wish to make them a refuge for indigents.
4. To create that spirit among the people that will make them willing to vote large sums of money for the improvement of the schools, and to put their best men in charge of the school affairs.

This may be hard but it is not impossible. By wisdom and tact, and, above all, by patience, a superintendent, recognizing his limitations and his powers, can lead the people year by year to build better, tho it be little at a time, until he can at least leave the schools better than he found them and his successor can take up the good work where he left off.

V. *BY WHOM SHALL TEACHERS BE SELECTED?*

FRANCIS G. BLAIR, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, SPRINGFIELD, ILL.

A free common-school system maintained by public taxation is justified on the ground that the welfare and safety of a democratic state demand an educated citizenship. In the management of a system thus conceived and thus supported there are at least three large interests which demand attention in the solution of every large question which arises. These three interests are the interests of the state, the interests of the taxpayer and the interests of the children. In the practical operation of the common-school system it is the general practice to have a board of men or women appointed or elected who shall be responsible for the successful conduct of the school and who are supposed to be somewhat familiar with the large interests involved and able to treat them all justly. When a board of education meets to consider the building of a schoolhouse they are supposed to understand the interest which the state has in the proposition, the attitude of the taxpayer, and the needs of the children who are to live and work in the building. It is well-nigh impossible for any board thus constituted to do equal justice to all of these interests. The taxpayer is usually present to insist that the appropriation shall be kept within limits. The board of education will constantly be reminded of his interests. They will have their window open toward the broad acres of ground that must be assessed and taxed; toward the herds of cattle and horses, the flocks of sheep; toward the town lots, stocks and bonds, and bank balances. They are, as a usual thing, not given to neglecting the interests of the taxpayer. The law will constantly call their attention to the requirements of the state in the matter, but the interests of the children, though ever present, may sometimes not make as strong an appeal as do the interests of the taxpayer. I believe that any board of education or any body responsible for the management of the public-school system will come more nearly to serving all of the interests justly when they seek earnestly to serve the largest and best interests of the boys and girls who are to attend the school.

But the purchasing of a lot or the building of a schoolhouse is not the paramount function of a board of directors or a board of education. They perform their greatest work when they meet together to select a teacher. While I am not given over much to religious forms, I believe that a board of education might do well to have at least a period of silence in which they should try to think of the children whose interests that teacher is to serve. If any discussion comes up as to whether the taxpayer will be willing to pay such and such a salary or not, or whether it would be wise to take on local talent rather than to go outside, or whether it would not be wise to take the graduates of their own high school in preference to better-trained teachers, I say, when such questions come to the front, I should like to have someone touch a button and have the children whose teacher they are trying to select come into the room, and to have someone say:

> Gentlemen, these interests which you have been considering are all worth while and you should seek to do justice by them, but here are the children whose interests you have been elected to conserve. These children are to sit at the feet of this teacher for five days out of the week and nine months out of the year. They also have rights in this matter. A trustee who robs the minor heir of his lawful portion is no more guilty than that school director or trustee who deprives a child of his district of the very best teacher that can be had.

I believe that the common-school system must be kept close to the people. They are a part of it and it is a part of them. Therefore, the officers who administer it must be elected by the people to represent them. In administering most of the affairs of the school, a board thus constituted and thus elected is the most satisfactory method which can be devised. One of the finest exhibitions of unselfish service for the common good is this vast army of men who give their time and services free to this great institution of the common school. It is doing them no discredit, however, to say that there are certain matters which come before them upon which they may not be competent judges. I am inclined to think that this is the case when it comes to selecting a teacher. There are certain elements in the make-up of a teacher which a board of education may be competent to judge. The looks of a teacher, her language and manner, all that complexity of things which we usually call personality, may be as well discerned by a board of business men as by an expert in education. I have been greatly surprised several times to see how a member of a board of education will detect a flaw in the personal make-up of a teacher which has escaped entirely the eye of the expert schoolman. The personal appeal which the candidate makes to the board will, in the main, be the same sort of an appeal that his personality makes to the children. But there are at least two other large elements in the make-up of a teacher, neither of which is a matter which can be easily judged by a board of directors. The teacher must know the subject which he is to teach. There is no substitute for this. In most cases the board of education assumes that the possession of a certificate is a guarantee on this matter, but certificates are sometimes so general in their character as to give little information concerning special knowledge of special subjects. Here is clearly a demand for the judgment of an expert to ascertain the fitness of the candidate in this particular respect. I have found boards of country school directors employing individuals who had certain superficial manifestations of learning, but who were so shallow-minded and ignorant that they could not hold the respect of the children for a week. The teacher must not only know the subject, but he must know something of the mind of the learner and the ways in which he acquires knowledge. He must also know how to take the subject-matter and the child's mind and bring them into that economic educative relationship out of which grows, buds, and blossoms the child's education. This skill is not a matter which an ordinary board of education can discover. It demands the educational expert.

It seems to me that in the selection of a teacher for the country schools the county superintendent is the proper person to select and nominate the teacher, the board having the power to confirm or reject the nomination. In this way boards of directors in a county, where the director plan is used, could hold the county superintendent responsible for the kind of teacher placed in their schools. And the county superintendent would have this decided advantage: he could place teachers in the various schools who had the fitness to do the quantity and quality of work which he wished to have done in his county. He would have an opportunity to carry his ideas and plans throughout the system of schools. I hear the testimony every once in a while from perfectly competent supervisors that their plans have failed in many instances where boards of directors have persisted in employing teachers who were either incompetent or unfit to do the work, or who in some instances were antagonistic to the general plan.

In cities, the city superintendent is the person who should select and nominate the teachers. The board of education ought to act as trustees of a business concern, selecting a man in whom they have confidence for the head of their system, letting him have the power to nominate the teachers who are to serve under him in order that his ideas may receive the right sort of treatment throughout the system of schools. The board could hold the superintendent responsible for the success or failure of the schools.

This suggestion has nothing new about it. The plan, in some form or other, is being used in various parts of the country. I believe that when our facilities for preparing teachers have greatly increased and when their selection and nomination is placed in the hands of educational experts that our school system will be greatly strengthened and the rights of the children will be much better served.

VI. *THE RELATION OF THE COUNTY SUPERINTENDENT TO THE SCHOOL BOARD*

A. C. NELSON, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, SALT LAKE CITY, UTAH

In the short time allotted to me to discuss the relation of the county superintendent to the school board, it will not be possible to enter into details in the treatment of this important subject. Yet, if the few observations that I shall endeavor to make will be appropriate and contribute in the least measure to the merit of the program which has been outlined for this department, I shall be gratified. The work to be done by the county superintendent and the school board is of such importance in the administration of our educational system that it would be difficult to emphasize too strongly the necessity of exercising great care and judgment in selecting these officers. And still, frequently but little thought is given to this vital question. But, perhaps, under present conditions, we may not expect the average member of the school board in the country districts to possess any great degree of special training or fitness for the work he has undertaken. This makes it all the more evident and imperative that the county superintendent must be a person of culture, character, training, and education. His teaching ability and his leadership must be such as to give him recognition in his community.

Diogenes, when taken a prisoner and sold as a slave by the pirates of the Mediterranean, was asked his trade or occupation. The sage replied: "I govern men." The county superintendent, to establish and maintain a relationship with his school boards that will be conducive to educational interest and growth, must be able, if not to govern men completely, to influence them to concerted and harmonious action. In a school system good courses of study, good schoolhouses, good textbooks and appliances are all important, but none of these alone nor all of them combined will accomplish much without proper school organization. In order to obtain this result the work and experience of a well-trained, efficient educational leader is required.

The superintendent must possess a strong and pleasing personality. He must know men. Many a superintendent who is honest, active, reasonably intelligent, and able to perform the duties prescribed by law, falls far short of accomplishing what he otherwise might because he is not a leader among men, because he cannot gain their good-will and confidence. Frequently he may fail to gain their confidence because he does not take them into his confidence. He may overestimate and put too high a premium upon what he may term his prerogatives, and look with an eye of jealous suspicion upon a suggestion which might be offered by his co-laborers—for such should the school board be. While it is essential for him to lead and to have the power of initiative developed to a high degree, yet he must be willing to recognize and act upon any commendable suggestion offered by the school board or a school patron in advocating measures for the betterment of educational conditions. It is an indication of skill and leadership in the superintendent, not only to accept suggestions properly given, but occasionally, if not frequently, to have others urge and stand sponsor for measures which are distinctively his own. How often do we find in legislative bodies men, not only defending, but earnestly urging, the passage of a bill which they had no influence or interest in framing, but to which they now give their untiring efforts because they have been requested to introduce it. So the superintendent, to succeed to the greatest limit, must be diplomatic. He must organize and marshal the forces which are within his reach and command them to subserve the legitimate purposes he may desire to have accomplished. To establish this harmonious action the superintendent must have the school board's willing support. He will find it to his advantage to consult and counsel at frequent intervals with the different members privately, and especially should he do this with the more influential members. In doing this it is not at all necessary for him to compromise his honor or his dignity. Nor will such a course in the least impress the board with an idea that the superintendent is weak and inefficient and must come to them for professional aid. The assistance he seeks from them is largely of an administrative nature. As a rule men feel complimented when they are consulted on matters of importance and it is a vicious man, indeed, who does not put aside his prejudices and bias under such circumstances and honestly give his best judgment under an appeal that has a tendency to place responsibility on him.

When the county superintendent has succeeded in establishing the relation of friend and co-laborer with the respective school boards under his jurisdiction, he has brought about a condition that will, in most instances, enable him to bring about a high standard of educational growth. Many a superintendent fails in bringing about this standard because the importance of this co-operation is overlooked. He devotes his time almost entirely in making plans for his teachers and reports for his patrons. I would not give out the impression that it is unnecessary to give attention to this part of his work, but it must not be emphasized to the exclusion of all else. While it is eminently necessary for the superintendent to meet frequently with his teachers in institute, it is quite as important for him to have frequent meetings of the school boards. The day has passed when a superintendent may be a mere passive official. He must be a positive force in every field that has a just claim to his attention

In my own state, the school boards, in all the larger counties, meet several times a year to discuss matters of educational interest and importance. These meetings are attended with commendable regularity and it would be difficult to place too high a value upon the results that have come from them. It is not unusual for our school boards to attend the regular county teachers' institutes each month. In our State Teachers' Association they have a section which is always attended by a large representation from all parts of the state. This, together with subscribing for and reading some valuable school journal, has resulted in creating a strong and continually increasing educational sentiment.

In most of the states, county school boards have the right by law to employ teachers. This is an important duty, a duty that is almost sacred, and it should be performed with great care and judgment. Thru the co-operation which has resulted from the conditions that I have briefly indicated, in Utah county superintendents are consulted in this important work and in many instances boards have delegated to them the authority to select the teachers who are to train her future citizens. The ideal relation of the county superintendent to the school board is that of teacher, leader, organizer, and educational inspirer; and that of the board to the superintendent of friends, assistants, and supporters.

VII. *THE RELATION OF THE COUNTY SUPERINTENDENT TO THE STATE SUPERINTENDENT*

W. W. STETSON, AUBURN, ME.

Authority that wins its own recognition has its basis in service. Those who are most interested in the welfare of the schools are ambitious to see the head of the national department of education a member of the president's cabinet. This promotion will not come until a portion of the expense of maintaining the public schools is paid from the national treasury. If the officers having the matter in charge should neglect to make repairs on a few of our battleships, ample funds would be available for this purpose. When the national government contributes its portion toward the support of the public schools the department will be authorized to prescribe minimum courses of study, minimum conditions of licensing teachers, and a minimum school year, all of which will be of such modest standards as not to be embarrassing to any state.

Many state educational departments are not rendering the service of which they are easily capable, to the local communities. When each commonwealth provides one-half the amount necessary for the support of the public schools, then the state superintendent will be given the power to prescribe a minimum course of study, minimum conditions for licensing teachers, minimum salaries in the common schools, minimum grounds and buildings, and a minimum school year. These minima will be somewhat in advance of those established by the national department.

The local taxing unit will be held responsible for raising the remainder of the funds ($\frac{1}{4}$) necessary for the proper administration of the local schools. It will be authorized to establish maximum courses of study, maximum conditions of licensing teachers, a maximum school year, and maximum salaries. National and state aid will be paid to those communities only which comply with the conditions enumerated above.

When the nation has done its duty and the state has assumed its responsibility in the matter of providing better school privileges for all the children, then there will exist an intimate and responsible relation between the county and state superintendent. This relation will be personal, professional, and official. The county superintendent will be courteous in the most distinctive sense of that term, and as cordial as his limitations will permit. Professionally he will hold himself responsible for having a thoro knowledge of the aims, methods, and means approved and recommended by his official superior. Officially he will be inspired by that kind of loyalty which defends without asking questions and devotes itself to crowning the contest with victory. This position has no place for one who is wreathed in smiles while facing his chief and whose face automatically assumes a grin when his back is turned.

When speaking to experts and from experience one is warranted in leaving many things unsaid. On occasions like this it is not necessary to say: It is good to be good, it is bad to be bad, and you *must not* be naughty.

VIII. *THE RELATION OF THE STATE SUPERINTENDENT TO THE COUNTY SUPERINTENDENT*

J. Y. JOYNER, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, RALEIGH, N. C.

The relation of the state superintendent to the county superintendent is twofold—first, general; second, specific.

The work of the state superintendent must be done and all his plans executed largely thru the county superintendent. The general relation between them, therefore, should be one of confidence, respect, loyalty, sympathy, and cordial co-operation. The state superintendent and the county superintendent should be bound together in the closest relationship by the cohesive power of a common, unselfish purpose, the noblest ever put into the heart of man, the elevation of mankind to a higher plane of civilization, citizenship, and service thru the education of childhood.

In the accomplishment of this high purpose the county superintendent should unconsciously and irresistibly look to the state superintendent as a trusted leader and an indispensable, sympathetic co-worker. In all things the state superintendent should be to the county superintendent a counselor and friend, easy of approach at all times, from whom the county superintendent will be sure of a patient, sympathetic, and courteous hearing and answer in all his struggles, perplexities, and complaints; and to whom he can look for help in his honest failures, and encouragement, appreciation, and commendation of his conscientious work and his real success. In criticism and correction, the state superintendent should be candid, but kindly, never dogmatic or dictatorial. In consecration to duty, in courageous discharge of it, the state superintendent should seek to be an inspiring example for the emulation of the county superintendent.

For the establishment and maintenance of this general relationship, I believe it to be absolutely necessary to have personal conferences between the state and county superintendents. Nothing can take the place of a hand-grasp, a face to face talk, a personal touch, a spoken word of encouragement, a sympathetic exchange of experience and confidence. These can be secured only thru general conferences between the state superintendent and all his county superintendents, and thru personal visitation of the county superintendent by the state superintendent in his particular field of work.

In my own state, this relation is fostered and strengthened by an annual conference between the state superintendent and the county superintendents in a state association, which every county superintendent is required by law to attend unless providentially hindered, his expenses being paid out of the county school fund. In addition to this state association, the state is divided into five districts of about twenty counties each, with an association for each district, meeting also annually for conference between the superintendents of all the counties of that district and the state superintendent. In this way the state superintendent meets personally every county superintendent at least twice each year; and the county superintendents have an opportunity to meet and confer with him and each other at least twice in each year. In these meetings, there is the fullest and freest exchange of ideas and experiences and practical discussions of all phases of educational work. They have proved invaluable for strengthening the personal relation between the state superintendent and the county superintendent, between county superintendent and county superintendent, and in securing uniformity, unity, and harmony, and in enabling each county superintendent to profit quickly by the successful experience of e very other county superintendent and of the state superintendent in any particular lin of work.

The state superintendent also spends as much time as he can spare from his office duties in visiting the counties and helping the county superintendent in his own field. In the long buggy rides frequently taken with the county superintendent to meet his appointments, the long talks, and the close personal association sometimes for several days, the state superintendent and the county superintendent come to know and to understand each other better and to sympathize with each other more; and the state superintendent acquires information about the progress and the needs of the work and about the difficulties of the county superintendent that could be acquired in no other way and that is absolutely necessary for him to sustain the proper relation to the county superintendent and to direct intelligently the work of the state.

In considering the specific relation of the state superintendent to the county superintendent, it is necessary to consider first the general nature of the specific work of the county superintendent. Speaking in general terms, the county superintendent's work may be divided into civic, professional, and executive.

His civic work has to do with his relation to the general public. In a democracy, a successful system of schools must have its roots in the minds and hearts of the people, and must be shaped to meet the needs of their life and to elevate that life to a higher plane. The school cannot do its best work unless the people are behind the schools. The school will generally be as good as the people desire and demand and no better. An important part of the work of the county superintendent, therefore, is the cultivation of public sentiment. The public must be led to see the importance and necessity of education in an age like ours, in a government like ours; to realize the needs for regularity of attendance, for proper equipment in houses and furniture, for school terms of sufficient length, for suitable environment in schoolrooms and school-grounds, for competent teachers, for adequate salaries, and for the money to supply all these. Interest and pride in the local school must be stimulated. Co-operation between the home and school must be fostered.

For the cultivation of that mysterious but potent force that we call public sentiment, and for bringing it to the point of insistent public demand for all these, a tactful and almost continuous campaign is necessary. This campaign must be directed by the county superintendent. In its direction he should have the help of the state superintendent. The state superintendent can help by furnishing facts and arguments for general circulation thru printed bulletins and thru the newspapers. He can also render valuable assistance by public addresses, by helpful suggestions to the county superintendent and by plans and programs from time to time. For the successful direction of this part of his work, the county superintendent must have the respect, confidence, and good-will of the people. If he deserves these, the state superintendent can strengthen him and help him by well-timed expressions of confidence and approval, printed and spoken—in other words, by holding up the hands of the county superintendent wherever they deserve to be upheld.

The professional work of the county superintendent has to do with the teachers and the course of study. This is in many respects the most difficult and delicate part of his work. He has a right to look to the state superintendent for help and direction in this work. In fact, under the present conditions, in the South at least, at present salaries, for the rural-school teachers at least, the rank and file of such teachers are mainly dependent for professional study and improvement upon the provisions made and directed by the state and county superintendents for home study and training, thru teachers' associations, county institutes, and reading circles. In order to have any uniformity, continuity, and correlation in this work for the home training of the rank and file of the teachers, the state superintendent must maintain the closest personal relationship to it, and, in fact, must largely plan and direct it thru the county superintendent.

In my own state, the course of study for the public schools is prescribed, prepared, printed, and distributed by the state superintendent. To aid the county superintendent in the professional training of his teachers, bulletins upon the teaching of different subjects, containing also a list of the best books for teachers on those subjects, have been prepared, printed, and placed in the hands of every teacher by the state superintendent. The state superintendent also has in preparation now a bulletin containing suggested courses of reading and study for teachers, typical suggested programs for teachers' associations, and classified lists of the best books for teachers. These bulletins will be distributed to assist the county superintendent in the successful conduct of his county teachers' associations and in the successful home training of the rank and file of those teachers.

The executive work of the county superintendent, in the sense in which I have used the term, has to do mainly with the business side of his work. This is perhaps the most tiresome and trying part of his work. As the real executive head of the county-school system, he must look after the finances, must be responsible for the performance of their duties by all other county-school officials, and for the general execution of the school law. He is in danger of having his entire time consumed and his entire energy sapped by the innumerable, deadening details of this part of his work, and of sinking into a mere office machine. The state superintendent can greatly lighten this part of his work by the preparation and distribution from his office of labor-saving blanks and record books for school committee-men, teachers, and other school officials, and by aiding him in systematizing the work.

Every state superintendent knows that the relation which he must sustain to the county superintendent in this part of his work must be one of loyal support, so far as the facts will justify that support, in cases of complaints and appeals, and one of sharing cheerfully the burden with the county superintendent and assuming frequently a responsibility for the relief of the county superintendent. From the very nature of the case, the office of the state superintendent must be a sort of clearing-house for executive troubles. I am sure that other state superintendents have learned, as I have, that it is safest to refer all complaints to the county superintendent and local authorities and to hear their side of the controversy before answering the complaint, and that such a hearing is due the county superintendent. In other words, the relation of the state superintendent to the county superintendent in his executive work should always be one of co-operation and loyal support instead of antagonism, in so far as the facts will justify him.

I am sure that every other state superintendent has learned from experience, as I have, that it is frequently a great relief to the county superintendent to have one somewhat farther removed from the scene of action and from local influences and prejudices to whose shoulders he can shift an unpleasant and embarrassing responsibility, and that the state superintendent owes it to the county superintendent to assume that responsibility for the relief of the county superintendent. How often have we ourselves sighed for the blessed privilege and opportunity of having somebody else a little higher up and a little farther removed to whose shoulders we might shift a disagreeable duty or a hard responsibility with relief and profit to ourselves and to our work. It is true that some things can be better done by higher officers farther removed from aggrieved complainants.

The state superintendent should be willing to help the county superintendent in his executive work to retain the confidence and good-will of his teachers and his school officers and the general public.

B. ROUND TABLE OF SUPERINTENDENTS OF LARGER CITIES

CONDITIONS OF MENTAL GROWTH OF TEACHERS IN SERVICE

JAMES M. GREENWOOD, SUPERINTENDENT OF SCHOOLS, KANSAS CITY, MO.

In opening this discussion I shall present a background upon which the intellectual progress of principals and teachers depends after they have been once regularly employed to teach, and then briefly indicate the lines of activity along which I have worked with the principals and teachers of the schools of Kansas City.

I. Under the conditions of intellectual growth, it is pertinent to inquire what effects, if any, it produces on the character and disposition of the individual, and what energy and power it communicates and engenders in his mind. If no perceptible changes in mental habits are produced, then the attempt has been valueless. It should be stated, however, that all knowledge to be useful in its effect in the formation of right mental habits must be liberal and accurate. This implies that every branch of knowledge has a beginning, a middle, and a present but vague boundary which is continually receding. To a learner, whether young or old, the beginning is always new and strange; at the middle stage of a branch the learner has gained some knowledge and has a wider outlook in that direction, and has added somewhat to his intellectual insight. As he proceeds toward the boundary, he begins to get some true notion of his own power and strength in the mastery of one branch. From what has been enunciated, it is evident that there is a low or beginning stage in which the learner is engaged in collecting material, and in adjusting himself to the process of shaping the crude material into groups and masses of knowledge, and that he gradually passes into that higher stage of knowledge in which he can begin effectively to apply his thoughts to his collected groups, and to use them as helpful material for his mind to work on. A beginner is always inaccurate and remains subject to this defect till he has acquired something more than the mere elements of the branch he is studying. It is for these and other reasons that I am fully convinced that every principal and teacher ought to investigate thoroly some one or more branches of knowledge early in life, and those who have not done so seldom learn any one branch thoroly in later years. The value of accuracy cannot be felt till one has made considerable progress in some one branch of knowledge, and he begins to look back on his own meager attainments. If he realizes his own weakness, this is the best index of his need of essential growth.

Knowledge quickly evaporates from that mind which holds it in fragments, or small quantities. Consequently, those who have given deep attention to one or more studies can learn, and frequently remain learners, to the end of their lives, and are able to retain and apply large or small quantities of other kinds of knowledge, however distinct the fields of investigation may be.

From these reflections, it is obvious that, owing to so much surface work in secondary and higher institutions of learning, and the numerous options offered in courses of study without serious and deep work in any one branch, a very large majority of principals and teachers vegetate, but never grow, after they once feel secure in their positions.

II. *Practical methods of working with a corps of principals and teachers.*—(*a*) What I shall say under this head applies directly to the working plan I have pursued in Kansas City, and it may be impracticable elsewhere.

The first kind of a meeting to which I invite attention is the regular monthly meeting held on Saturdays at which time all the principals and teachers assemble at 9 A.M., and the session closes at 12 M. These meetings are held in the auditorium of the Central High School which will seat comfortably two-thousand persons. Upon assembling a few minutes may be required to make any special or general announcements. Immediately after the announcements, if any, the assembly breaks up into three or more sections—the principals and high-school teachers forming one section; the fifth-, sixth-, and seventh-grade teachers another section; and the first-, second-, third-, and fourth-grade teachers the third section. These section or division meetings continue till 10:30 A.M., and after a fifteen minutes' intermission they reassemble in the Main Hall.

The programs for the two divisions of the grade teachers are made out during the summer vacation by the assistant superintendents who assign two persons to lead in the discussions, the first to have a paper of twenty or twenty-five minutes, and the second of fifteen minutes, and these programs are announced at the preliminary meeting held on Saturday before the schools open for the year the following Monday. The grade sections elect their own presiding officers, and select persons to carry on the discussions in five-minute talks after the leaders have read or spoken their allotted time.

During the latter half of the year, class exercises are frequently given before each section, designed to illustrate some phase of school work, and after the pupils have passed out, these exercises are commented on.

In the high-school and principals' section a similar plan is pursued half the time. By this is meant that every other meeting is broken up into departmental meetings in which papers are presented and discussed. At the other meetings subjects are presented as in other associations having a formal program for all the principals and high-school teachers. The program is made by a committee of this section.

Upon reassembling at 10:45 A.M., the exercises of the hour are usually introduced by a musical selection, after which a general address is delivered by some celebrity either resident or from abroad.

All the section meetings are wholly professional or semi-professional and bear distinctly on the whole system of school work from the kindergarten thru the high school, while the formal addresses are informational and cultural—liberalizing.

b) Half-way in point of time between the monthly meetings are held the principals' meetings. These meetings begin at 9 A.M. and close at 11:30 A.M. and are held on Saturdays.

The superintendent during vacation makes out the yearly program for these meetings and assigns two speakers or essayists for each topic. The first prepares a paper not to exceed twenty-five minutes, and the second, a paper not to exceed ten minutes. After the reading of these two papers the subject is open for general discussion allowing each speaker five minutes, and in which all may participate. Free discussions are regarded as very valuable features of all teachers' meetings. It affords an opportunity for one to talk forward as well as back.

c) There is a literary club, called the Greenwood Club, which has been in existence for a third of a century. While it is composed largely of principals and teachers, in it all kinds of public questions are presented and discussed. About thirty meetings are held each year. These meetings are held in the Assembly Room of the Public Library on Friday evenings. The session begins at eight o'clock and closes at ten o'clock. One paper is formally presented, after which any one present can speak for five minutes.

This is a sort of public safety-valve to which all persons are invited. Any one present is a member. There is no fee for membership.

d) For the purpose of enabling teachers to prepare for the annual professional promotional examination, I talk to them and to all others who wish to avail themselves of the privilege, on Saturdays from 9 A.M., to 10 A.M. when the monthly teachers' meetings or the principals' meetings are not in session. At these meetings professional subjects are presented in such a manner as to enable the teachers to get a better insight into educational theory and practice and a historical basis upon which these depend.

e) At the beginning of each school year two or three of the best recent books on education are recommended for the principals and high-school teachers to read, and to write a review or criticism of one of these books of not more than six hundred words, and hand it to the superintendent.

One or two good books thus read and analyzed each year will keep principals and high-school teachers in close touch with much of the best current educational thought.

f) Frequently, during the year I call the attention of the principals and teachers to such new books as I have read or examined on special lines of work. Recently a book on *How to Teach Reading* came under my notice, and it was such a book as would be exceedingly helpful to grade teachers, and I mentioned it, and more than fifty of these books were called for by grade teachers that afternoon.

g) There is hardly a day that teachers do not ask me what new books I have recently read, and have I not read something or do I not know of a book that would help them in their general work or along special lines in which they are interested.

h) Many of our grade teachers are working for degrees at the University, but I do not find that their school work suffers or is even slightly neglected on that account. It is my deliberate opinion that a large, full-flowing fountain of pure water is a far better stream for a learner to quench his thirst from than a tiny rill that is almost stagnant.

THE SUPPLY OF TEACHERS AND THEIR TRAINING AFTER APPOINTMENT

MR. GEORGE S. DAVIS, ASSOCIATE CITY SUPERINTENDENT OF SCHOOLS, NEW YORK CITY

In every large city school system the provision of an adequate supply of properly prepared teachers is one of the most difficult problems with which we have to deal; and the training of these teachers after appointment is co-ordinate with, if it does not transcend in importance and magnitude, the problem of a sufficient supply. This latter problem cannot be regulated or solved by an artificial system or arbitrary arrangement, because it is almost entirely controlled by economic conditions. In prosperous times other occupations pay better than teaching, and the supply lessens automatically. In times of financial disturbance or depression, the supply, especially of women teachers, increases. The loss of position, the reduction in wages, or the curtailment of business opportunities for the men, in many instances impels the women of the family to seek remunerative occupations outside the home. This was abundantly evidenced during the recent business panic by the number of applications for reappointment as teachers on the part of women, both married and unmarried, who had formerly followed that vocation. The work of training teachers after appointment, however, can be and has been systematized with methods that are fairly satisfactory and permanent.

In the city of New York 1,472 new teachers were appointed last year; while the number of vacancies during that period was nearly 1,800. From these figures may be seen the large number of new teachers absorbed annually into our city school system, and the extent of the task of training them to become efficient workers is apparent. This influx of new material each year, amounting to over 10 per cent. of our entire teaching corps, places upon the supervisory staff a constant and onerous task. These teachers come to us from various sources, each giving a different preparatory training which has to be harmonized with the actual practical work of the schools. It is found that those coming from the city training schools adapt themselves to our conditions more readily than the others. This is due to their six months' substitute and observation work in the schools, which forms a part of their two years' course of training, and to their consequent better acquaintance with the course of study. It is in this respect that the supply from other sources, with their less practical training, find themselves at a disadvantage at the start.

For the beginner in the profession of teaching, the essential element of equipment is a thoro knowledge of the subject-matter to be taught—an element that is frequently lacking. To this should be added a knowledge of a few fundamental principles and methods, some knowledge of child-nature, an interest in human affairs, a love of the work, and an ambition to succeed. Accurate knowledge of the child-mind is a thing to be hoped for, but it is rarely, if ever, acquired by any of us. Upon this equipment, to which, in the case of our own training schools, is added the desirable element of experience, we can base an effective system of training subsequent to a teacher's appointment.

In the city of New York this system comprises the following direct active agencies: the board of superintendents; the district superintendents; the directors of special branches, with their assistants; and the principals, upon whom rests, most directly, the responsibility for the proper and efficient training of the teachers appointed to their schools.

A brief consideration of the means employed by the last of these agencies, the principals of schools, will be of more interest than a consideration of any of the others.

In different schools the problem varies both in difficulty and extent. Some schools will receive at one time two or three new teachers; others will receive as many as ten, or, as I have known, as many as eighteen, all of them inexperienced. This, at times, is unavoidable and the problem has to be met.

The first step in the teacher's training is to see that she is properly assigned to grade and class. Sometimes the principal is restricted by conditions, and the assignment cannot be in accordance with the teacher's present abilities; but in general, an attempt is made to suit the assignment to them. This gives the teacher confidence and makes her feel that there is an intelligent and sympathetic mind guiding her. Her subsequent training by this means, in the process of gaining efficiency, requires an assignment of greater difficulty, when a measure of success has been attained. It should range gradually thru several grades or years of work, with classes of both boys and girls, if possible. The changes of grade, however, should not be so rapid as to prevent accurate acquaintance with a definite field of work. Otherwise there is confusion and discouragement. The period of probation in our city extends over three years. At the end of that time, most teachers have found themselves and receive their permanent licenses as an official acknowledgment of their promise of continued success. Their training, however, by no means ends here. It is continued in various ways during their whole career.

The next step is to require the new teacher to make a plan of her work for the term, based upon the course of study. This makes certain that the teacher analyzes her field of labor and enables her to see its scope. If this is insisted upon by the principal, and no copied plan of some other experienced teacher is accepted, the novice is much strengthened. The plan submitted should be carefully criticized and returned. It may be that the plan proposed by the teacher is not one that is profitable to work with. It should then be suggested that the teacher compare it with those of other experienced teachers on the same grade, with a view to modifying it, if necessary. Her next attempt will probably produce an acceptable scheme of work. These first plans should not be exhaustive nor minute, but general in character. They are chiefly to make sure that the teacher realizes the amount and scope of the work to be done in the time at her disposal. Care should be taken not to require too much in the way of plan books, notebooks, and progress books. These things are often carried too far and tend to make the teacher mechanical and to deprive her work of its life, freshness, and spontaneity.

In all schools, one of the general means of training teachers, both the experienced and the inexperienced, is the conference. Usually, these are held twice a month; in some cases, oftener. Sometimes they are general in nature, according to some prearranged plan of the principal; at other times, particular; the subject being suggested by observations made during the work of supervision. They are held for the purpose of helping those teachers that are in need of inspiration, confidence, or knowledge of method. The teachers themselves take a prominent part in them, the principal guiding the discussion to accomplish the aim desired. Probably the most effective of these special conferences are those arranged by grades. In these, the teachers of the classes of the same grade come together and discuss some phase of their work, their difficulties, their expedients for overcoming them, their methods, or the results attained. At times, the teachers of the grades above and below that being discussed may be called in, so that they may see the relation of the work of their respective grades. There is much enlightenment to be derived from this plan. It gives perspective and prevents teachers from becoming mere pieceworkers. To make these conferences effective, the principal must visit the classes subsequently, to see that the points brought out are heeded.

General conferences and lectures, with large bodies of teachers, are usually ineffective, especially when they are planned from a central bureau and attendance upon them made compulsory. A conference is valuable only when there is something of interest to confer about, but not when it is held merely for the purpose of complying with a schedule.

Another means of training made use of freely and effectively is the visit by the teachers to other classes in the school, or to some other school, for the purpose of observing something definitely determined beforehand. It may be to see some special method of teaching, or it may be to get inspiration or a new point of view from the observation of good regular work. With the younger teachers, those in need of training, the observation of good regular work is productive of most good. These visits should be made with the main purpose of learning, not of criticizing; and the principal should know in advance just where such teachers should go and just what subject to observe. The opportunities to make these visits will sometimes be sought by the teachers; at other times they are suggested to them. In the latter case, the teacher may be getting into a rut; or, perhaps, it is thought that seeing the greater difficulties under which other teachers labor and do good work will be a source of encouragement and content. Under our by-laws, a teacher may have three days each year for these visits, without loss of pay. Reports are required, and these reports are frequently made the subject of discussion at grade or general conferences held immediately afterward. By these visits, many good things are spread from school to school or brought in from schools other than our own. The only drawback noticed in connection with this system of visitation, or hospitation, is that some schools doing especially good work in certain subjects have, at times, been overrun with visitors, not only from our own schools but also from schools outside the city. Some principals, therefore, have had to restrict visitors to certain days and even to special appointment, as their general work was being interfered with.

Much may be accomplished in the training of young teachers by helpful suggestions in their reading. At this point of their career, I do not think that reading upon the general theory and history of education is profitable. It should rather bear directly upon their daily work. It must be remembered that they are now face to face with the problem of learning the art of education; and their efforts should have reference to the acquisition of that art. Standard books on methods and the practice of teaching, good educational magazines well edited, and not given to the over-elaboration of trivial things, or to the careful development of the obvious, supply good material. The intimate and practical suggestions of the latter appeal to the beginner and often prove helpful. But this, like all other matters, must be watched.

Nearly every school in the city of New York has an excellent reference library which is used by the teachers and principals in aid of their daily work. Some of our principals reinforce and illuminate their suggestions by referring their teachers, as need arises, to certain passages, paragraphs, or chapters treating of the matter under consideration. They do not burden them with whole books, but give them just enough to cover the point. One principal has tried, with good results, the plan of withdrawing from her work, for an hour or so, a young teacher who, perhaps, is tired from her efforts with a large or troublesome class, and setting her to work with a request to read up some special topic. At these times, the principal may take the class or put it in charge of a teacher in training assigned to the school temporarily. The teacher, in this way, gets a new grip on her work thru rest and abstraction from classroom duties, and, at the same time, acquires something useful in her teaching.

Of our great public libraries, of the opportunities offered by our colleges and universities which are largely attended by progressive teachers and which constitute a great attraction for teachers from outside the city, it is unnecessary to speak. These, with the art galleries, the museums, and other potential facilities for culture and amusement are advantages that have a strong influence in the broader training of the teacher.

For the young teacher, the beginner, I do not advocate university work. This is better deferred for a few years. Often, when it is not deferred until some mastery of her profession is attained and felt, the school work, the study, and the health of the teacher all suffer together. Her professional reading, during the apprentice period, should be devoted to the acquisition of a thoro and accurate knowledge of the subject-matter to be taught and of good methods of teaching. Such a knowledge of subject-matter we might fairly assume, but it is not safe to do so. I have had young teachers inform me that they were studying for academic degrees; and at the same time their classes were poorly disciplined, their work unorganized, and the pupils uninterested. For the beginner the class and the class-work present all the material for study that the average teacher can successfully cope with. All the time that teachers, in the earlier stages of their career, may devote to study and maintain themselves in proper physical condition, will be needed for the fitting preparation of their work from day to day. Unless this preparation is thoro, they cannot present their lessons interestingly and with confidence; and their energies, in consequence, are absorbed in disciplinary problems which gradually induce a loss of self-control, a personal quality absolutely essential in a good teacher.

I do not believe that the organization of all these elements or means of training into a formal system of conferences, visits and reading courses with compulsory participation for all beginners and weak teachers, would be effective. Efficiency in this work must, in the end, depend upon an *esprit de corps*, engendered by those who lead. If this is lacking, the training is either perfunctory, mechanical, or haphazard. The nearest that we have come in New York City to any compulsory work for self-improvement is a proposition to adopt the plan in operation in Chicago, I believe, by which teachers showing weakness in any line of work may be required to attend a certain number of hours at the training school for the purpose of correcting the defect. If compulsory, this arrangement might act in the way that the power to inflict corporal punishment is said to act. This is, the mere existence of the requirement would make its use practically unnecessary. I cannot imagine a teacher going back to training school, even for a brief period, without some loss of dignity and self-respect. Yet, the feeling that this might be required would, perhaps, be a great stimulus to those that are lax or indifferent in their work, simply from the desire to avoid the requirement.

But above all conferences, except those with individuals, above any system of visiting or course of reading, we must place the efforts of the principal of the school, put forth intimately and sympathetically with each teacher in need of help. Upon the principals more than upon any other agency depends the degree of efficiency of every school system. The work of their schools is the reflection of their influence; and the character of that work, except in a few individual instances, will never rise above the standards which the head of the school is capable of setting.

The little matters upon which depend good discipline and good instruction must, at the start, be carefully looked after. In repeated visits to the class rooms; in carefully considered suggestions, and, at times, admonitions; in just criticism and judicious praise; in helpful illustration; and in actual demonstration of suggestions, all by the principal, are found the most effective means for the training of young teachers in their practical work. Some principals will mechanically issue written directions and consider their duty performed. Others will require an enormous amount of written preparation of plans and notes, to the inevitable discouragement and disgust of their teachers, who, finding themselves oppressed by a ponderous mechanism, grow to dislike their work and to distrust their leader. Such things only restrict and harass spontaneous effort. They tend to fashion the worker into a machine instead of a thinking, sympathetic human being which a true teacher must be. The spirit of a school must be free, natural, enthusiastic, and cheerfully serious. Such a spirit provides an irresistible impulse to earnest effort and the most favorable conditions for good work. It inspires a receptive mental attitude that will seriously incline most teachers, not only to accept, but to seek criticism. In short, by tact and ability, the principals must establish and maintain a state of mutual confidence between themselves and their assistants. While sensitive to faults, they must always be patient, encouraging and ready to help—to show how; they must set a high standard and inspire their teachers to strive for it. We have many at the head of our schools capable of doing this, but we have too many that are not.

If the work of training teachers subsequent to appointment is to become more efficient we must demand high qualifications of our principals, each of whom must be, in the fullest meaning of the title, the *principal teacher* of the school.

DISCUSSION

[Reported by C. E. Chadsey, superintendent of schools, Denver, Colo.]

C. N. KENDALL, superintendent of schools, Indianapolis, Ind.—The superintendent finds one of his most important duties to be the making possible the improvement of the work of the new teacher. In the Indianapolis Training School a special emphasis is placed upon practice in the school arts. All cadet teachers before receiving regular appointments have had experience in actual charge of schools. Over every two cadet teachers there is placed a director who criticizes the work and endeavors in every way to develop the cadets into effective teachers. One year of practice must be had before the diploma of the training school is given. This scheme proves very efficient in meeting the local conditions of Indianapolis.

Time is often wasted in school visitation. In many cases the visit is aimless and the results decidedly unsatisfactory. A far better scheme is to send out groups of teachers for school visitation, under the immediate direction of the assistant superintendent. These visits should also be followed by conferences concerning the work which has been observed.

WALTER H. SMALL, superintendent of schools, Providence, R. I.—Conditions in Providence are somewhat unique. A large percentage of the teachers are trained at the Brown University and the normal schools. Candidates for normal-school work must be high-school graduates. They are then given a two years' course followed by special training under the state critic. Two teachers are assigned to each state critic, who work for one-half year under her special guidance and instruction. The new teachers are distributed thruout the schools for one-half year's preliminary training, after which diplomas are given.

After receiving a diploma the teachers are on the substitute list and ordinarily are in service about a year and a half before appointment is received.

College graduates have similar training for one year, under close inspection. After two or three years' experience permanent appointments are given, and annual elections are dispensed with.

The critic teachers, in addition to their special supervisory work with training-school teachers and new teachers, visit any teachers in order to see whether weak spots may not be strengthened. In addition, encouragement is given for continued courses at the Brown University and other institutions. About 40 per cent. of the Providence teachers are taking these courses.

JOHN W. COOK, president, State Normal School, De Kalb, Ill.—In our normal school we especially attempt to develop teachableness on the part of teachers. Our teachers come to us after having completed the high-school course and have with us two years' work. The first year this is largely academic work in which the various school subjects are studied, with what might be termed the pedagogical attitude. Two years of practice work are given these normal students.

I. C. MCNEILL, superintendent of schools, Memphis, Tenn.—A unique institution in Memphis assists the teachers. This is known as the Goodwin Institute. It is endowed for the purposes of establishing literature courses and a free public library. During each week two or three lectures are given under the auspices of this institute. The teachers are specially provided for, university courses being given in connection with this institute.

I believe that it is far easier to secure the growth of teachers thru encouragement rather than fear.

ADDISON POLAND, superintendent of schools, Newark, N. J.—My problem is modified on account of the proximity of Newark to New York. It makes it necessary to establish a different basis of securing new teachers. We dispense with formal examinations such as are required in New York City, and have a salary schedule in which the maximum salary is reached far sooner than in the larger city.

J. A. Shawan, superintendent of schools, Columbus, Ohio.—We strive hard to avoid inbreeding, believing that if our teachers can be secured from many places, a far better general average can be secured than otherwise. We therefore endeavor to tempt teachers from many of our colleges for our work.

In spite of this a large percentage of our elementary teachers come from our city training school. Twenty per cent. of our teachers are college graduates. The increase in our salary schedule has very greatly increased our supply of candidates for positions. We place much emphasis upon such matters. The Columbus teachers have a voluntary reading circle with a large attendance. Many of our teachers are taking courses in the university.

W. C. Martindale, superintendent of schools, Detroit, Michigan.—Fifty per cent. of the Detroit teachers are graduates of the Detroit Training School. For some time the practice prevailed of having our high-school faculties recommend those who in their judgment would be the best teachers. This did not prove a satisfactory scheme. We now have definite academic requirements, a certain standard of scholarship being insisted upon. This is followed by giving each candidate an oral examination by the faculty of the training school. At the best, however, trivialities determine the judgment as to the fitness of candidates. All candidates are required to take a physical examination.

W. H. Elson, superintendent of schools, Cleveland, Ohio.—In Cleveland we have employed a substitute supervisor. This supervisor looks after the work of the new teachers. Each grade is given, during the year, special instruction. The teachers of Cleveland are divided into four classes; promotion from class to class is made at the recommendation of the superintendent.

C. F. Carroll, superintendent of schools, Rochester, N. Y.—Growth is the key-note of the hour. It is uniformly true that some teachers cannot grow. The great question for superintendents to answer is: "How can we be inspirers?" Above all I believe that inspiration is necessary. However, in addition to inspiration, administration is necessary, but, above all, put a substantial premium upon the growth of the teacher.

J. A. Whiteford, superintendent of schools, St. Joseph, Mo.—How can superintendents help principals? One way is to send some of them to the Department of Superintendence. The securing of satisfactory new teachers is to me one of my most difficult problems. I have found that testimonials are of no value, even testimonials from superintendents of high standing. I personally value most highly a personal letter to me from a fellow superintendent which is sent in response to a letter to him which I have written. I have found, in practice, that the recommendations of our university specialists are valueless.

Stratton D. Brooks, superintendent of schools, Boston, Mass.—The progressive superintendent is compelled to realize sooner or later that if he is to be effective he cannot avoid irritating the incompetent.

Eligible lists, while not entirely satisfactory, are helpful. I believe it is unquestionably true that the upper half of the eligible list is better than the lower half.

We in Boston have appointed a supervisor of substitutes. Her chief responsibility is to give human interest to the work of our substitutes. Principals, even, seem to be unable to do all that they should in the way of supervision. Too often it is true that the principals themselves are incompetent. I believe that in Boston one of our most helpful schemes is the Sabbatical one on half salary. This is really not an expense to the district inasmuch as those eligible for the Sabbatical year are universally on the maximum salary and their place is taken by substitutes who receive half the salary.

Henry P. Emerson, superintendent of schools, Buffalo, N. Y.—The state law of New York determines the requirements for candidates. In Buffalo we have never experienced any lack of candidates for positions. We find, however, that the work of the supervisors is ineffective, so far as it concerns the improvement of principals. Too often the principal merely feels relieved and abandons all responsibility as to special supervising, becoming from year to year less effective himself.

Henry S. West, assistant superintendent of schools, Baltimore, Md.—The feature of our promotional examinations in Baltimore is the study of some special problem. By doing this the teachers are lead to do some original systematic work along lines in which they are specially interested.

Carroll G. Pearse, superintendent of schools, Milwaukee, Wis.—There is danger of developing too much reverence for the regularly constituted source of supplies. Free opportunity for admission to our ranks should be given to all who have succeeded no matter by what method they have secured success. The shortage of teachers will be solved by making the profession more attractive. The teacher is the one who can make her standing in the community high. As to the improvement of teachers, proper supervision is the final and vital thing in securing it.

Wm. H. Maxwell superintendent of schools, New York City.—I care very little for the college graduate in the elementary schools. I will continue to care little for them until our university departments of education have learned how to turn out good teachers for the elementary schools. The great problem before school superintendents is the galvanizing into life those teachers whose brains are ossified. The final solution must, in all large city school systems, come thru the principal of the school. The school principal while most helpful to the teacher when he is helpful, may, if he is a martinet, blight the enthusiasm and efficiency of the young teacher.

I came to this meeting to get light upon the problem "How we can make good principals out of poor ones." This hope has not been fulfilled.

C. ROUND TABLE OF SUPERINTENDENTS OF SMALLER CITIES

TO WHAT EXTENT SHOULD STATE UNIFORMITY LAWS APPLY TO CITIES IN RESPECT TO COURSES OF STUDY, TEXTBOOKS, AND METHODS IN (A) *ELEMENTARY SCHOOLS,* (B) *HIGH SCHOOLS?*

I. JOHN W. CARR, SUPERINTENDENT OF PUBLIC SCHOOLS, DAYTON, OHIO

In order that there may be a system of public schools, elementary and high, it is necessary that there be state laws governing the same. These laws should be such as to secure uniformity in most particulars; and, at the same time, there should be a certain amount of elasticity, so that the system may be modified to suit local environments. In the discussion of this subject we shall endeavor to point out some particulars in which there should be uniformity in all cities of a state and also some particulars in which each city should be allowed to choose for itself.

The state law should define an elementary school and specify certain subjects that should be taught in these schools—such as reading, writing, spelling, geography, history, grammar, and the like. So far as I know, the law in all of the different states designates certain legal branches that must be taught in all elementary schools. Of course these legal branches should be taught in the elementary schools of every city in the state. Furthermore, these branches should be given prominence on the daily program and should not be taught in a perfunctory way. But in addition to these legal branches, city boards of education should be authorized by law to add other subjects to the curriculum in the elementary schools, and to pay teachers from the public funds for teaching these subjects. Any other course, in my opinion, would prevent the proper development of the elementary schools in our cities.

But what subjects should city boards of education be permitted to add to the required branches? Should there be no limit? If a limit, what should it be? This brings us face to face with a problem that is very difficult of solution. The overcrowded curriculum in the elementary schools results from adding this thing and that thing and still other things to the course of study without any eliminations. A halt must be called by somebody at some place. I for one believe that the state should not only prescribe legal branches of study for the elementary schools, but there should be some sort of an understanding relative to the minimum amount of time to be devoted each week in each grade to the legal branches. I am not ready to say that this should be enacted into statute law, but school superintendents, school boards or teachers in some way should come to a definite understanding relative to the amount of time to be devoted to the legal branches, and then there would be a necessary limit both in reference to the number of other subjects and the time to be devoted to these subjects in the elementary schools.

Among the subjects that city school boards should be authorized to add to the elementary course, I would mention music, drawing, physical culture, and manual training in some form for both boys and girls. By naming these subjects, I do not mean necessarily to exclude all others, but these should receive first consideration. If such subjects as German or any other foreign language are taught in the public schools, boards of education should be authorized to provide instruction in the same, only on petition of a considerable number of the patrons of a district, and then not all pupils should be required to take these subjects. City boards of education should also be authorized to provide special schools for truants and defectives.

Only in a general way should state uniformity laws apply to the high-school course of study in cities. The law should require each city to maintain a high school and the course of study should be at least four years in length. The state law should enumerate certain high-school subjects all or any of which may be included in a high-school course of study in any city in the state.

But the board of education of each city should have the right to adopt a high-school course of study for its own schools. This would afford an opportunity for each city to have a high-school course of study that would most nearly meet the needs of the particular locality.

I favor state uniformity of textbooks in the required legal branches of the elementary schools. I believe that this uniformity should apply to city schools as well as town, village, and country schools. I offer two arguments in favor of uniformity of textbooks in the elementary schools:

First, the cost is less and the quality of the books not necessarily inferior.

For several years I lived in Indiana where there was state uniformity of textbooks in the elementary schools. Afterward I moved to Ohio where each board of education adopts its own textbooks for the elementary schools. I could not help noticing the difference in cost of textbooks in Indiana compared with those in the city where I now reside. The advantage in each instance is in favor of state uniformity. Expressed in per cents., the advantage in cost in favor of state uniformity follows: Spelling book, 70 per cent., series in readers 137 per cent., series in arithmetic 14 per cent., series in language-grammar 18 per cent., series in geography 46 per cent., United States history 28 per cent. In the case of the readers the series in use in the Ohio city contains eight books and the Indiana series but five, but on the whole, the Indiana books are as well suited for school use as the others. The number of books in each series in other subjects is the same—in some instances the books are identical. It is an easy matter to see that there is quite a difference in cost to the people.

But the first cost is not the only real difference. Every time a family moves from one community to another in a state where there is not uniformity of textbooks, a different set of books must be purchased. This is expensive business with no corresponding advantages.

The argument is sometimes advanced that a state having uniform textbooks does not have an opportunity to secure the best textbooks. So far as my experience goes, I believe this argument to be fallacious. In Indiana, standard textbooks were offered for adoption, the only difficulty being to secure standard first and second readers at ten and fifteen cents, respectively, as provided by the law.

The second argument I present in favor of state uniformity of textbooks in elementary schools is that it prevents agents of publishing houses interfering with local school affairs. The schoolbook agents whom I have known compare favorably with gentlemen engaged in any other legitimate line of business. But human nature is human nature, and representatives of publishing houses are not always able to withstand the temptation to get this particular person elected on a local board of education or defeat that one, for the special advantage it will be to them at the next adoption of textbooks. This interference I believe to be detrimental to the best interests of the schools, and furnishes one of the strongest arguments in favor of state uniformity of textbooks in the elementary schools.

In reference to high schools I do not think there is the same urgent need for state uniformity of textbook as in the grades. There is a far greater difference between the high schools in a state—rural, village, and city—than elementary schools. Yet I see no reason why it would not be advantageous both from an educational and a financial standpoint, if there was uniformity in some of the high-school textbooks, such for instance as algebra, geometry, and Latin. We are still in the experimental stage in reference to high-school texts in English, science, manual training, commercial subjects, and, to some extent, history also. For that reason I favor local adoption of such texts.

As I am not aware of any state uniformity laws relative to methods of instruction, I leave this branch of the subject for others to discuss.

II. CARLETON B. GIBSON, SUPERINTENDENT OF SCHOOLS, COLUMBUS, GEORGIA

The venerable subject of state uniformity has the virtue of freshness and originality as a topic for discussion before any department of this Association. In undertaking to prepare some observations on the subject for this meeting, I examined one volume after another of the *Proceedings*, and failing to find any paper or discussion, took up the admirable index of all volumes from 1857 to 1906 and was surprised to find that the subject had never been presented in any department.

From the beginning of state systems of schools, there has been of necessity state uniformity in the subjects prescribed for the common-school curriculum. From time to time the several states have made a few additions to the list of subjects originally prescribed, guardedly adding, however, only such subjects as were acknowledged to be in the list of rudimentary branches or those that by common consent were admitted to be closely akin to the traditional school subjects.

State uniformity of textbooks seems to have had its origin in the demand, not for unification of school work thruout a state, but for less expensive schoolbooks. And this demand seems to have come not from the actual first cost of an outfit of books, but from the additional, and often unnecessary and unreasonable, expense resulting from the frequent change in books, especially in rural schools, where the teachers were changed every session, or from the migration of pupils from one school district to another. The latter hardship fell most heavily upon the large tenant class in rural districts, who were least able to bear the expense of a new outfit of books every year. The initial demand for state uniformity has almost invariably come from that class of citizens.

The agitation of any questions relating to schools by the public at large has always one saving factor, which is that it quickens general interest in public education. And therefore, as the discussion of this one topic of state uniformity and its concomitant effort to reduce the cost of books have everywhere reached the masses of the people, it may not be far from correct to say that to state uniformity more perhaps than to any other issue is due the awakening of interest in public education and the initial efforts at systematizing and organizing the work of the country schools. As the resultant of state uniformity of texts, following the prescribed uniformity in branches authorized, has come in many states an admirable course of study for all the common schools of the state. This has given definiteness to the work, created higher ideals and stimulated teachers to better preparation for efficient service.

Uniformity in textbooks as an expediency has therefore contributed in no slight degree to the welfare of the common schools in the creation of a more lively popular interest in education, in safeguarding the important matter of economy in the management of schools for the masses of the people, in systematizing and organizing the work of the country schools, in bringing about a definite and logical course of study, and in stimulating teachers to reach higher degrees of efficiency.

Where such conditions existed, there was no demand for uniformity of texts, springing from natural and local causes. If such demand arose, it came from sympathy for the less fortunate in educational matters, or was stimulated by zealous persons who concerned themselves actively with bringing about a change in the important industry of making and selling schoolbooks. Where the masses of the people are fairly well aroused to the importance of education, where the schools are being conducted upon sound business principles, where the work is well organized and a definite course of study carefully planned is laid out, where by intelligent supervision and direction proper stimulus is given to increasing efficiency, there is no occasion, I submit, for state uniformity of texts and course of study. Wherever a community, town, city, county, or in the larger cities, even a ward or borough, has brought about general educational conditions far in advance of the average conditions prevailing, state uniformity could contribute nothing to the welfare of its schools.

For a city or community supporting its schools entirely or in large part to be required to conform to a state uniformity law is seriously to embarrass and hamper the legislative and executive authorities of the schools in their efforts to make the system adequately meet the needs of the community. The tendency of state uniformity would be to dwarf the development of a system of schools in a rapidly growing and progressive community with all the problems incident to its more complex life. The intelligent direction of the educational affairs of such a community demands that there be recognition of the dominant life of the people, of their chief interests and concerns, and that the dominant life of the people shall largely influence the schemes for education. If state uniformity is adapted to the interests of the rural schools, and it does serve its largest purpose and accomplish its greatest good in connection with those schools, it could not only contribute nothing to the interests of the schools of a progressive city, but would seriously detract from their highest welfare. The school authorities of such a community, recognizing the dominant interests of its people, not only might wish to adjust its course of study and introduce certain subjects bearing directly upon such interests, but should feel resting upon them an obligation to shake off the traditions of school work and by certain changes in the course of study, subjects taught, and general methods of conducting the school, bring the people's schools to conserve their interests in the highest possible degree of efficiency.

Any extensive uniformity in texts or in courses of study, whether town, city, county, state, sectional or national, has a tendency to operate against the development of initiative and progress in educational work. The more rigidly fixed are the limitations as to books, course of study, and methods, the more discouraging it is to a thoughtful student of education to work out his problems, and the more impossible it becomes to take any initiative in correcting evils. State uniformity is good when confined to schools of uniform needs. It will often be found in the schools of a very large city that their needs are quite divergent. This is recognized in New York, and the plan of uniformity in texts is therefore not applied to all the schools of the city of New York.

Where a state contributes less than half the funds necessary to maintain an institution or a school system, it should be willing to have a minor voice in directing the educational affairs of that system. To contribute little toward support and undertake to control is undemocratic and offensively paternal. The most important factor in the stability and perpetuity of a democratic government is the self-control of self-supporting and adequately managed lawful institutions operating for the moral uplift of the people. The principle of local self-government is inherent and everlastingly fixed in the American people. Whenever a bit of territory demonstrates beyond question its ability to control its own affairs and adequately maintain its institutions, it is the fixed policy of this people to grant it all the rights and privileges of statehood. When a town grows into an important municipality and reaches the point where it must have new charter regulations, there is in all sections of the country a readiness on the part of the state government to grant the municipality the privilege of controlling its own affairs within the general constitutional provisions of the state. The same principle should apply to educational institutions and systems of schools. There is an abiding sense of justice in the American people which impels them to recognize the right of institutions and social units self-supported and adequately managed within general constitutional limitations, to control their own affairs.

Agitation in favor of a uniformity of texts in city schools and other local systems has a tendency to magnify unreasonably the importance of textbooks as tools with which the teacher workman must work. And in proportion as this tendency grows will the higher spiritual work of the teacher be overshadowed. To prescribe certain texts for a well-organized city high school and hold over the students, as well as over properly trained specialists in the several departments of such a high school, the imperative demand of the state that such books shall be used, and no others, is to attach undue importance to the implements of the school. To force such teachers and students to use books which may be adequate to the needs of many rural high-school classes, but entirely adequate to the demands of a well-organized, well-officered urban high school, is often obnoxious to such teachers and students and detrimental to the interests of the school.

In some states that have enacted uniform textbook laws, provision has been made for the careful selection of the best texts for rural schools by able, upright, and unfettered experts; and in the state's contracts with successfully competing publishing houses, provision has been made whereby all city and other local systems within its borders, providing in major or even in minor part funds for the maintenance of their schools, may have the benefit of the state prices on prescribed texts, if the local systems desire to use any of them. This of course would apply to elementary schools, as a state which does not recognize and support a system of high schools would have no right to adopt textbooks, prescribe a course of study, and contract for the supply of such books to high schools within its borders locally maintained.

Wherever the matter of expense and immunity from overcharging of local retailers are of serious concern, a progressive municipality or local system might as a matter of economy impose a very low *ad valorem* tax, barely sufficient to cover the actual cost of supplying the schools with necessary texts, and under careful business management of the school authorities provide such schools with an adequate supply of good textbooks at much less cost to the patrons of the schools than where they must be bought from local retailers with or without a state contract. This is done in many cities under a free textbook law, and is found to be not only a matter of business economy, but an important factor in adequately equipping the schools for efficient work.

In the absence of such a free textbook law and the imposition of a special tax for schoolbooks, a local system may devise a simple plan by which a small fee or per capita tax may be collected from all pupils entering the schools, and the aggregate of these fees, constituting a book fund wisely managed by the proper school officials, could be used to supply the schools not only with texts, but with all stationery, apparatus, and equipment of tools and materials for all the special lines of work such a school system may wish to carry on. Where such a plan has been worked out and tactfully and judiciously introduced, it has readily met with popular favor, because as a matter of economy its value has been readily recognized.

PRINCIPLES AND METHODS OF PUPIL GOVERNMENT

I. CHILD-CITIZENSHIP AND THE SCHOOL CITY

WILSON L. GILL, ORIGINATOR OF THE SCHOOL CITY, GERMANTOWN, PA.

Some time ago I came to a realization of a fact so simple and plain, and yet so important that it seems strange that we have not always recognized it and acted upon it. It is this: *citizenship is a practical art, and ought to be taught in a practical, systematic, scientific, direct way.*

Having made that discovery, as hundreds of thousands may have done before, I felt compelled to use it for the happiness and welfare of our children and our children's children. The result of my endeavor is a very simple plan which gives immediate pleasure to the pupils, aids greatly in correcting every wrong, develops a good spirit, aids in the construction of a strong and good character, and helps the young people to form good habits of life and citizenship.

Out of every hundred boys, roughly speaking, there are not more than from one to six who are viciously mischievous and they have much more good than bad in them and prefer to get large, visible, good results, with honor and glory, than to do wrong with a chance of punishment and ignominy. This plan provides the escape for these boys from their bad life and impels them, and they are glad to be so impelled, to accept the immediate pleasures of active, productive, visible right doing. The ninety-nine other children are at the same time reaping their reward of happiness and better conditions.

Our people are willing to spend large sums of money to help reform boys who have gone astray. The money that it takes to support and reform, or rather, attempt to reform one boy, will, by means of the school-city method and plan, save ten, probably a hundred, maybe an entire thousand boys from that kind of life which makes them candidates for the reformatories. In view of these facts I appeal to you to use at least as much power to prevent the developing of candidates for the reformatories as is used to reform them after they have gone astray. This process is immeasurably cheaper and at the same time is immensely richer in good results.

Character the real object of public instruction.—The greatest aim and object of public education is to cultivate in the individuals to be educated a good conscience, and to secure for them a wise and resolute self-government and the desire and ability to co-operate for the common good; or, in other words, a good character. Sharpening the wits and storing the memory with facts, the apparent object of schools, colleges and universities, is, in reality, but a minor matter, and will easily and necessarily follow the attainment of the chief end of education.

Teaching precepts, old—Training systematically in citizenship, new.—Teaching the precepts of morality and the doctrine of one's relation to his fellows and to his country is as old as literature. Enterprising and true teachers have always sought for ways to put such teachings into practice, and they have been successful as teachers in proportion to their success in this matter. A well-developed method of practical character-building and training in morality and in performing the duties and exercising the rights of citizenship, as is done in the school city, is thoroly systematic and successful and is new.

Public policy should demand it.—Every country should require it as a matter of public policy, and the highest legislative power in the state ought to give authority to it. There are many school-teachers and officers who are bright enough to see the importance of training the children in citizenship and to form good characters, and there are many who are sufficiently unselfish and self-sacrificing to perform the labor of thinking about and installing what is to them a new method in their schools. Such teachers should be encouraged to begin the work without waiting to be compelled by law.

An adequate method has been found.—A practical method which may be used in a wholesale way in all schools, for students of all ages, which makes it possible and easy for teachers to lead their pupils to cultivate good consciences, to govern themselves wisely and to co-operate for the general good, will do for the cause of morality, education, and human welfare what the steam-engine and electric apparatus have done for the cause of manufacturers and human comfort. The school-city method of popular government has proved itself to be fully adequate to this great purpose. This large claim is not rashly or unadvisedly made.

Industrial training—healthful division of child's time.—It is not claimed, however, that this method can take the place of other needed progress in public instruction, made necessary by the social, political and industrial evolution which has accompanied the general introduction of machinery and the immense immigration from the farms to the cities, all of which have a direct bearing on the moral and civic conditions, and, consequently, call for notice in this place. The changed conditions demand for the public thrift and the public safety that children be trained in productive industry, and that intelligent attention shall be given to making a healthful division of the children's time among book-work, productive industry, recreation, and rest, and to the proper housing and feeding of the people. Let it be noted that by productive industry is not meant that kind of manual training in which a child is engaged only two or three hours a week, and in which he uses up material furnished out of the public funds and does not give a visible and commercially valuable and adequate return.

Supervision needed.—Even such enterprising ones need the encouragement and help of constant supervision by a competent and legally authorized specialist in moral and civic training. Such special supervision is at least as important as state supervision of any branch now taught in the schools. This is necessary for many reasons, a notable one being that many teachers who have had no experience in the use of the method and do not fully understand the principles involved, think it would rebound to their credit if they should change the plan and thus make it appear to be wholly or at least in part their own. Such ones generally fail in accomplishing the object of the school city, and the whole plan is abandoned, unjustly discrediting the movement. Some of these same teachers would have succeeded had they been under competent supervision. Most teachers are women, who have had no practice or knowledge of citizenship, therefore they need the assistance of supervision.

Those who take up a new method, even with very best intentions, naturally tend to relapse into their old habits. To prevent this they need constant encouragement, till the new habit is fully and permanently established. Whenever a teacher says "The pupils have lost interest," it is only another way of saying "The teacher has lost interest and has fallen back into his old ways."

There are school teachers and officers who will not take the trouble to introduce this method. Whether or not the latter are in the vast majority may not be of much importance. That there are any such is sufficient reason for looking to the higher powers for favorable decision in this matter.

A question for statesmen.—Whether the children of a nation shall be trained as subjects of a monarchy, as is being done ordinarily thruout the world, or as self-respecting, co-operating citizens of a republic is a question that demands the attention of broad-minded statesmen, whose insight is sufficiently penetrating and whose outlook is far-reaching enough to enable them to discover a vast peril to the democratic institutions of our great republic at the present time, whose judgment is good enough to enable them to recognize the remedy when it is placed before them, and who have enough backbone to act promptly and effectively in this matter. They should put it beyond the choice of all who might hinder. They should lay down the law that the schools of a republic shall train its people while children as citizens, not as subjects, and that they shall make the developing of good character in the children the first aim and a specific practical part of the daily work of the schools.

Facts and philosophy.—In the United States, the greatest and most successful of all republics, the one great failure in the government is the municipality, and this is a sore spot that threatens death to the democratic spirit of our republic. It is worth while to analyze the situation, with a view to seeing the principal causes for the weakness in American municipal government.

The most glaring defect is that a great mass of the educated people do not go to the primaries, and they neglect their municipal duties. That leaves the effective political voting power in the hands of those who are comparatively uneducated. They in turn are organized and manipulated by men who make a business of municipal politics, not always, but generally, for the money they can get from the public treasury, and, by means of blackmail, from private persons and establishments, and especially from those engaged in forbidden or restricted practices and business.

Anarchy fostered.—Under this pressure, secret opposition and disloyalty to constituted authority is constantly fostered. Many pupils regard their pleasure and interest as opposed to those of their teachers, who are apt to be thought of as spies and in some cases as enemies, instead of friends and guides.

Old-fashioned school government is monarchy, in which the teacher endeavors to rule by means of his conscience and arbitrary authority, and the political results are as we see them in the municipalities of the United States.

The remedy.—The recognition of the cause of the evil is almost a declaration of the only remedy, which is systematically to train the individual wisely to cultivate his own conscience and be governed by it, rather than by that of the teacher; to co-operate with his fellows for the common good, rather than for mischief; to form the habits of law and order, rather than those of anarchy. In other words, the remedy for the apathy of educated men, in reference to their municipal duties, which is in effect anarchy, not of the lowest, but possibly of the most dangerous type, is to train them while young to think and act and to form the habits of citizens, instead of, as in the past, training them in the schools and colleges as subjects of monarchy. It is encouraging to notice that there has been improvement in this in many schools in the past ten years, and that the best and most successful teachers have always to some extent led their pupils, instead of driving them.

Lost liberty and death.—"Eternal vigilance is the price of liberty," and the educated people have not paid the price. Among the consequences are insufficient results from the expenditure of public funds, more disease and a higher death-rate than there should be. The people have lost a part of their liberty, if, because of the inability or dishonesty of the public servants, they must labor additional hours to pay their taxes, and quite as much so if they have lost life because of bad drainage, dirty streets, impure water and milk, bad food, or other evils which should be prevented by the government.

Schools and colleges are to blame.—As this state of affairs is charged to the account of educated people, let us take a closer look. We see practically the following: The uneducated men, who can be easily handled by the machinery of the bosses, all vote; most of those who have had but little schooling vote; a college and university education is almost a certain guarantee that a man will not attend the primaries or perform his other municipal duties. This seems to throw the blame on the schools, colleges, and universities. They teach right principles. The fault does not seem to be in the books. The fault is in the school management. From the primary school till the man graduates from the university he is made to feel and to know that he has simply to obey, and nothing further to do with the government of himself and his fellows, and that he is a tattle-tale and sneak if he brings a wrong-doer to justice, and is mean and dishonorable if, when called upon by the authorities to testify, he does not so shape his testimony as to clear the offender.

Plan of school city.—The plan of the school city is to organize all the children of each schoolroom, under a charter given by the higher authorities, as citizens of a municipality. These citizens elect a mayor, judge, other administrative and judicial officers and a president of the city council. All citizens in the room who have not been elected or appointed to some office are members of the city council. The mayor appoints his cabinet and subordinates, and has power to remove them at will. Nomination by petition, proportional representation and the initiative and referendum enable the whole body of citzens to express and enforce its will at any time, either with or independent of its officers. Elections, for several reasons, occur frequently, once in ten weeks—and experience has shown that it is desirable to make the term of the police officers short. In most primary schools every citizen not elected or appointed to some other office is a candidate for a place on the police force, for which a high ideal of gentility and kindness is set.

School state.—To create a good *esprit du corps* for the whole school and for obvious civic and educational purposes, the school cities in one building constitute a school state and elect a governor, chief justice, secretary of state, and such other officers as may be desired, and each city sends one or two representatives to the state legislature. Affairs of the whole school or of citizens of two school cities will be taken care of by the state officers.

School national government and international relations.—School state governments may be united in school national governments and these may set up international relations.

Good results.—Many instances of fine moral results are reported from the different schools. Of course, the results are not uniform, as the school city is not an automatic machine out of which all must come in exactly the same shape. It is a method, and its degree of success depends upon the interest and skill of the principal and teachers who use it.

Almost without exception, when a troublesome boy accepts the responsibility of an office in the school city, he instantly puts off his ugly character and assumes one of glad obedience and respect for authority and others' rights, and at once begins to help in all that is right, instead of hindering, as was his habit. If, then, the teacher understands the method and is true to it, he will be friendly to the boy, consult and encourage him, sympathize with him and help him to maintain his enthusiasm, and the boy is saved permanently. Women teachers, with correct intuitions and hearts full of sympathy, if they understand the simple method, will seldom fail to make the work of regeneration permanent. The condition of the school city is almost an exact index of the character and condition of the head of the school and of the teacher.

Industrial, moral and civic evolution.—When our Republic was young, the mass of her people lived on farms. Boys and girls went to school only two or three months in the year. For the rest of the time they labored with their parents in the fields and at the spinning-wheel and loom, always under moral, religious, industrial and civic influence, and training. The hoe and spade of the colonies have given way to the steam-driven machines on the vast prairies; the spinning-wheel and hand-loom to immense cotton and woolen mills; the country forge to stupendous rolling-mills, furnaces, foundries, and forges. By such means the children of today are separated during work hours from their parents.

No systematic character training.—The public schools, which consume these released hours and years in training the intellect and cramming the memory, make no systematic, intelligent endeavor to furnish that kind of character-training which our ancestors received from their parents. The War of the Revolution failed to wipe out that vestige of monarchy which lurked in the government of the little country school. That was too insignificant to be thought of, for in those days the American citizens' characters were built in the open country, under the influence of their parents, the heroes of the Revolution. Now, American character is developed in great swarming buildings, under the weight of a heavy, crowded, intellectual curriculum, and that vestige of monarchy which was left in the school has grown, with the increasing months of the school year, to large proportions and is wielded by masters, who themselves have been trained as subjects, not as free men.

Thus, the public schools and colleges, boasted bulwarks of our liberties, have unwittingly, but ceaselessly, nursed the spirit of monarchy, and thru childhood and youth subjected our whole people to it, to that extent, that when they reach the age of manhood they do not go to the primaries and municipal polls, and thus they fail to enter into their heritage of citizenship. This is what has made government by the bosses not only possible, but inevitable. Fortunately, some of the municipal bosses, may be many of them, are so patriotic that they would gladly see political power restored to an intelligent, active, faithful citizenship, and will not use their power to prevent their own children from being trained in the privileges and responsibilities of faithful citizenship.

School-city children's contribution to the cause of universal peace.—School cities have been established in other parts of the world. Last week I completed arrangements for the exchange of letters between the school citizens of Japan and the United States, to be developed on a large scale. The arrangements provide for translations. The letters may take up any topics, tho the basis of the correspondence will be civic interests and international friendship. The good results for which I hope, not only for the cause of international peace but of geography, language, and civic and social relations, are so obvious that it is unnecessary for me to take time at present to point them out. There has already been enough corresponding between school children of different nations to demonstrate the feasibility of this project, carried on systematically and on a large scale, for the specific purpose of developing international friendship and peace.

Objections.—There is no possible objection which can be raised against the school city, which cannot with the same reason be raised against the teaching of arithmetic and of any moral precepts or practices. For instance, Dr. Harris says if he wanted his grandchildren to learn the disreputable practices of ward heelers, he would send them to a school city as constituted by Mr. Gill. We do not teach these practices in the school city any more than in a church they teach lying and stealing.

Appeal to all school superintendents.—I hereby appeal to you, superintendents of all public schools and to all patriots and friends of a government of the people, for the people, and by the people, to join in this movement to provide that every child who enters a schoolhouse shall be treated while there as a free man, and be confirmed in the character and habits of a free-born, faithful, and patriotic citizen, not only ready to die, if necessary, for his native land, but what may be more difficult and quite as important, actually living for his race, patiently and fearlessly defending his rights and faithfully performing all his public duties.

II. SCHOOL CITIES

OLIVER P. CORNMAN, DISTRICT SUPERINTENDENT OF SCHOOLS, PHILADELPHIA, PA.

I have so high a regard for the sincerity and singleness of purpose of Mr. Gill in his championship of the particular method of pupil government that he advocates, and so thoro a respect for his unselfish devotion to the cause, that I regret that in discussing this question I am constrained to view the method and its results from a quite different point of view. Perhaps we may find consolation for the strange disparities in the reports of men supposed to be viewing the same thing by recalling Saxe's old poem of the five blind men and their diverse accounts of the elephant they went to see, and by frankly acknowledging the certain blindness inherent in us all upon which William James has discoursed so entertainingly.

Many of our plans of pupil government, it seems to me, do not sufficiently concentrate upon the problem of realizing the best possibilities of the individual pupil, but are suggested and controlled by the ulterior consideration of finding a remedy, or panacea if may be, for the admitted and deplored ills of the body politic.

"The Shame of the Cities" is, unfortunately, so familiar a story with us that it is read with a shrug and the hopeless interrogation, "What are you going to do about it?" A favorite reply to this question, and one which in this age and country of enthusiastic belief in the possibilities of education is certain to receive the emphatic indorsement of almost all well-meaning people, is "Begin with the children, and so inculcate right principles and develop in them civic consciences that the rising generation of upright men and women fully conscious of their civic responsibilities will so regenerate the cities that their government will become the *pride*, rather than the *shame* of the Republic." The "school city" is this reply narrowed down to a very definite and specific form of application.

The failure of our municipal governments is so lamentable, the motives of the "school-city" reformers so unquestioned, the suggested remedy apparently so efficacious, that boards of education, the newspapers, public-spirited citizens, in fact the laity in general, give the "school city" their cordial support. The only class of people who question its value as a panacea for municipal ills are the experienced educators of our public-school systems. Here and there "school cities" have been organized. In some schools they have been declared successful, in others they have been given up, but the great majority of educators seem to regard the paternal form of government that obtains in the schools generally to be the legitimate form for school purposes, and the method by which the best character training can be most successfully accomplished. This is not entirely due to a mere conservative adherence to the old established order of things (the tendency in education has too often been the other way, adopting the new for newness' sake being frequently charged up against the modern schoolman), but is based upon careful and intelligent consideration of the case in the light of expert knowledge of child nature and its possibilities, and of experience of the behavior of children in the community life of the school. It is held by many educators that while a main purpose and actual accomplishment of the schools is to train their pupils in self-government, yet it is not possible to organize such a thoro-going system of self-government as that contemplated in the "school city" without its being under such surveillance and control by the school authorities as essentially to negative its self-governing elements, and that a frank paternalism is better than a thinly disguised one. Indeed, it is asserted that a merely nominal self-government, strictly supervised and directed by the teacher, such as the "school city" must inevitably become, approximates only too closely (however unintentionally) the form of government—boss-rule under free men's charters—by which many of our municipalities are actually controlled. The analogy of the school organization to the city *de facto* government becomes so true under such conditions that the children run the danger of having their habits of thought and conduct trained along the very lines which a true training in good citizenship would lead them to combat. These and other dangers of the "school city" have been well pointed out by Dr. Harris who sees in such a civic dramatization the dilemma for the pupils of a school of demagogery and unscrupulous politics or of servile discipleship under the almost hypnotic leadership of a strong teacher.

These are some of the considerations which bring many educators to pause before they adopt this otherwise most attractive scheme for the civic regeneration of the race. But the value and success of the "school city" cannot be settled satisfactorily on *a priori* grounds. The matter must be put to the test of actual trial, and the results carefully and impartially studied. General testimony of principals who have organized "school cities," unchecked by other investigation, seems to me of little value in establishing scientific conclusions. Many who have started the "school city" are so enthusiastic for the great end in view that their judgment of the means is liable to be colored; others are likely to feel that the partial or complete failure of the "school city" may be charged up to their personal mismanagement, and so do not care to report lack of success. In order that the study should be of real value it should be conducted at first hand by actual visitation of the "school cities" to observe their operations, and by conference with the principals and teachers having them in charge. The actual sentiments and opinions of the children themselves should also be obtained as a very important part of the whole inquiry.

In investigating results of the "school-city" experiment, I have not been able to make any such thoro-going inquiry, but merely submit as a partial contribution toward the solution of the problem the returns from a *questionnaire* answered by the teachers (forty-five in all) of three schools in which "school cities" had been organized for about one year, and the answers made by the pupils of one of the schools to another set of questions submitted to them.

In order to secure as far as possible unbiased replies, the pupils were directed to omit their names and write only *grade* and *sex* upon their papers. Returns were not obtained from pupils below third grade, as most of the questions, tho very simple, are beyond the comprehension of first- and second-grade pupils. Many of the third-grade, and even some of the fourth-grade pupils wrote "I do not know" in answer to the questions calling for reasons. The replies were collated separately for boys and girls and by grades and departments (grammar and primary). Some interesting differences for age and sex were thus disclosed.

The summary of results showed that the distribution of "offices" had been very general, nearly half (47 per cent.) of the 601 pupils reporting having served as officers. The higher the grade the greater the dislike for office, as 13 per cent. of the primary pupils, and 50 per cent. of the grammar pupils replied that they objected to serving. The grammar-grade pupils seem to be more willing to obey the officers, since 25 per cent. reply that they object, while 37 per cent. of the primary scholars object; but the older pupils are more skeptical as to the value of the plan, for only 68 per cent. wish it continued, while 82 per cent. of the primary pupils vote in its favor. The girls are slightly more favorable in their judgment of the officers, 69 per cent. replying that they regard most of the officers as good, while only 63 per cent. of the boys record this opinion. The girls are also more willing to obey in the ratio of 78 per cent. to 62 per cent. They manifest about the same degree of interest in the continuance of the "school city," 73 per cent. of each sex voting for it.

It is frequently asserted by the advocates of the "school city" that the pupils are not only practically unanimous for it, but are filled with enthusiasm about it. This is probably due to the fact that the children are questioned when assembled together, and by one who, they feel, is enthusiastic for the system. Any experienced teacher knows that under such circumstances children will vote unanimously for anything. The individual returns, however, show little enthusiasm and considerable doubt as to the value of the plan. A large majority of the teachers (91 per cent.) it is true, voted in favor of continuing the experiment, many, however, because of the great end in view, some merely because of the monitorial features of the system which they favor; but they do not give strong testimony of its value *and in all these schools the plan was finally abandoned.* The teachers considered that about one-fifth of all the officers elected discharged their duties poorly, 8 per cent. of the teachers reported noticing "many" cases of disrespect to the officers, 26 per cent. reported little interest even in elections (altho children take a great interest in any break in school routine) while 68 per cent. reported that their pupils showed little interest in the "school city" in general.

In one school a special test was made of the pupils' spontaneous interest in the "school city." The general election was to be held according to charter, three times a year, i. e., at the beginning of each term—the school year being divided into three periods. Two general elections were held, but the time for the third was purposely allowed to pass by. Not a child out of over 850 took sufficient interest to ask why election was not held. The election of classroom officers was arranged to take place at beginning of each month. This also was allowed to lapse in May, seven elections having been held previously during the school year. Only two instances were reported of pupils asking the reason for this omission. Such unconscious testimony strongly substantiates the opinions expressed by the teachers of the lack of interest in the system. Moreover, 27 per cent. of all the pupils, 32 per cent. of the grammar grade, voted to discontinue the system. This in spite of the fact that they believed the school authorities to be strongly in favor of the plan. Of course, the anonymous nature of their report gave them freedom to vote as they thought;

but no doubt many were influenced by the favorable opinion of their teachers. If one-fourth or one-third of the citizens of the United States wished its form of government changed, the country would, it seems to me, be in a deplorable way. A mere three-fourths majority in favor of the Republic would certainly not be a very satisfactory one. Of the thirty or more "school cities" organized in the public schools of Philadelphia all but one or two have been discontinued. Those that still claim existence have been so modified as to retain little more than the monitorial features of the original plan.

Again it is claimed that children as a rule show excellent judgment in the election of their officers, tho why they should show good judgment in this difficult matter when they have very poor judgment in almost everything else (immaturity not being the period of "judgment"), is difficult to understand. Teachers report that they regard only 68 per cent. of those elected as "good" officers and that 17 per cent. were "bad" in conduct by ordinary school standards, while only 66 per cent. of the pupils report that they considered most of the officers "good." These reports seem to show that the judgment displayed in choosing officers is what might be expected of children, crude and faulty. It is sometimes claimed that the election of the "bad" boy to office makes a surprising change in his conduct and general attitude toward the school. This is, perhaps, true in some instances, but not in all, nor even in a majority of cases. In the opinion of the teachers about one-half (47 per cent.) of such cases showed some improvement under the responsibilities of office.

In the grammar grades, as noted above, fully half the children do not wish to hold office. In a couple of instances not a pupil was willing to serve for his class. The unwillingness to hold office in the higher grades seems to be due largely to the development of desire for popularity and of ideals of honor and friendship, that do not appear in the lower grades. The desire may be wrong, and the ideals imperfect, nevertheless they operate as strong motives either to refuse office or to discharge its duties perfunctorily. Like Touchstone's Audrey these ideals may be poor things but they are their own and the best they have and we should be exceedingly careful how we tamper with them. "Because it makes enemies," "because you lose friends," "because I don't like to report others," are sample reasons given. Others simply object for selfish reasons, "Because you don't have so much fun," "because it is too much trouble," etc. The primary-grade pupil who hardly knows what popularity means, who is a natural tale-bearer, and who scarcely develops friendships to a degree worthy of the name, makes the more willing and efficient officer. Indeed, it has seemed to me that in the lower grades (leaving out of consideration the first and second grades to whom the whole system is nearly if not quite incomprehensible) the "school-city" plan works most smoothly. They take the matter seriously, not questioning for a moment the wisdom of the school authorities who have organized the system, and accepting with childish faith the things about it that they do not understand. The intelligence of the higher grade pupil, which *a priori* should fit him better for citizenship and assumption of officership in the "school city," enables him to see the weak points of the system, while his selfish interests and emotional development prompt him to shirk his responsibilities.

It is claimed for the "school city" as an incidental merit that it greatly improves the discipline of the school in which it is organized. This is hardly borne out by the testimony of the *questionnaire.* A large majority of the teachers hold the opinion that it exerts no effect one way or the other, a small minority (11 per cent. for classroom discipline and 35 per cent. for general discipline) hold that it exerts a good influence, while 2 per cent. expressed the belief that its influence is for the worse. I am inclined to conclude from this testimony and from my own personal observation that the influence of the "school city" upon the school discipline is not very considerable. A well-disciplined school will continue so after organization as a "school city" and a poorly disciplined one is not likely to be very greatly improved. Indeed, a "school city" is liable to become riotous in the extreme, unless carefully supervised and controlled.

The answer to the questions of the pupils' *questionnaire*, which called for reasons for their opinions, plainly disclosed the great difference in the point of view of primary and of higher grade pupils; the former seemed to miss the significance of the "school-city" idea almost completely; the latter, while showing somewhat greater appreciation of its meaning, were inclined to place school-boy and girl ideals and traditions of conduct above it. Nowhere was there manifested enthusiasm for the "school city," *nor a sense of the relation between present and future responsibilities.* The answers seemed to show that pupils of the elementary school are neither ready for, nor desirous of, a system of self-government in the school.

The discussion thus far has been restricted to the executive functions of the "school city." The legislative and judicial branches of the "school-city" government should be considered in detail, but time limitations forbid. It must suffice to say that the exercise of these functions is considerably more difficult than those of the other branch of government calling to a still greater extent upon capacities which the child does not possess. It is true that a "school city" may be organized in all these departments, and be kept running under the careful and constant direction and supervision of the school principal and teachers. Just as the modern animal trainer can teach his four-footed pupils the most marvelous tricks, the children can be made to play the game more or less well, but the self-government is only nominal, and the real significance of the plan, either completely misunderstood or at best but very vaguely apprehended. This is in complete accord with what is now known of child nature from careful observation and experiment of the trained psychologist and pedagogue. Children are not miniature replicas of adults, but are essentially different in many of their instinctive traits, emotional dispositions, and intellectual characteristics. The "school-city" system appeals to instincts and emotions which either do not exist or are undeveloped, and makes demands upon the child's intelligence which he is unprepared to meet. In short, it shoots over the pupils' heads, and so fails to effect that development of the civic conscience, and that preparation for good citizenship for which it is designed.

The lack of interest that the children manifest in the "school city" after the first flush of novelty has subsided, the comparatively neutral effect that it has upon the discipline of the school, the great amount of supervision and control that must be exercised by the teacher in order to produce even the semblance of success, all seem to indicate that the system is not adapted to the nature and development of the pupil of the elementary school, and tell strongly against its value for the great object which it has in view.

Tho the "school city" may not accomplish what is claimed for it, nor be a legitimate method of training in citizenship, yet there may perhaps be derived from its study suggestions for the utilization of class and school spirit, and the development of a helpful co-operation on the part of the children that will be of considerable value in that general development of character upon which all good citizenship is necessarily based.

It is this general development of character that is the fundamental consideration. The special forms of training as provided in the "school city" and by other similar devices are unimportant if not positively meretricious. I think this has been borne out by such scientific investigations as we have at hand. Instance the following conclusions reached by Earl Barnes as the result of a concrete study of the development of children's political ideas: "The sense of the abstract state and of their obligations to it will come to children only later in life. *Special emphasis on citizenship as usually understood in elementary education is largely wasted time;* and yet the patriotic teacher will breed patriots in all his attempts to make good men and women. Citizenship is but one attribute of good and intelligent men and women and this study calls us back once more to the wholeness of elementary education. All attempts to make good artisans, good leaders of commerce, good soldiers and officers, or good citizens and rulers by any short-cut will produce only one-sided, uncertain, and dangerous grown-up children." With these conclusions I am fully in accord.

DISCUSSION

SUPERINTENDENT E. C. WILLARD, Stamford, Conn.—We are obliged to teach textbooks in civics abstractly. By this method, the subject can be taught concretely. We differentiate this from all other subjects. If has been an unqualified success in Stamford. It may do a great deal of good and certainly no harm. It has been in successful operation ten years in one of the schools of Syracuse, N. Y.; also in one school in Philadelphia eight years. Thirty schools in Philadelphia have used it successfully from one to three years. The results always depend upon the tact of the teachers using it.

SUPERINTENDENT J. H. PHILLIPS, Birmingham, Ala.—We are still experimenting. We are not ready with positive conclusions. Great caution is necessary in introducing a plan of this kind. The results so far in Birmingham are good. The boys have been made responsible. This has helped the teacher. Most school troubles are caused by a few active spirits. The great majority are silent. This scheme gives voice to the great majority. It is especially successful in four schools in Birmingham. It gives voice and power to the better sentiment of the school and public sentiment in the school, as everywhere else, is the controlling spirit.

SUPERINTENDENT WINFRED HOWARD BABBITT, Hawaii.—There is a peculiar situation in Hawaii. There are children of many different nationalities, to be made into American citizens. The value of school city is here greater than elsewhere. Great results have been accomplished by this method, greater, I believe, than are claimed for it

D. ROUND TABLE ON AGRICULTURAL EDUCATION

TOPIC: PREPARATION OF TEACHERS FOR AGRICULTURAL EDUCATION

In the absence of Secretary Wilson, of the Department of Agriculture, Dr. A. C. True, director of the Office of Experiment Stations, was asked to represent the Department of Agriculture. Dr. True spoke informally and the substance of his remarks was as follows:

The Honorable Secretary of Agriculture has been prevented from coming to this meeting because of press of other business. He has not commissioned me to represent him on this occasion, but I feel that it is proper for me to say a few words relating to the educational work of the great department over which he presides. The secretary is greatly interested in all that pertains to the education of our rural people and under his administration the national Department of Agriculture has been encouraged to promote very actively the movement for education along agricultural lines. Later in this meeting Mr. Crosby will describe somewhat specifically what the department is doing in this matter, and I will not anticipate what he has to say.

I may, however, call attention to the fact that a large part of the work of the department is broadly educational. Thru its investigations and explorations it is collecting a large amount of new information on agricultural subjects which it is disseminating broadcast thruout the country thru numerous popular and scientific publications.

Under the law by which it was established the department is authorized to use the term "agriculture" in its broadest sense. Not only farming, but also horticulture, forestry, and whatever relates to the growth and preservation of plants or domestic animals, in villages and cities as well as in the open country, come within its province. The department is, therefore, doing much which is of interest and value to teachers, students, and other people in the towns as well as on the farms.

In recent years the department has found that it is very desirable to supplement its publications with local demonstrations of new crops and methods and with oral instruction at farmers' institutes and other assemblies of people interested in agriculture.

It has also realized that if the work done by the department and the state agricultural experiment stations is to be thoroly utilized for the improvement of our agriculture and the intellectual and social uplift of the masses of our rural people, the minds of the country children must be prepared to receive the new information which may aid them in their future life work. The department has therefore engaged in the propaganda for the introduction of agricultural subjects into our school curricula, and in co-operation with the agricultural colleges and educational leaders in the various states has sought to ascertain and define what is feasible in the development of a system of agricultural education suited to the needs of the vast number of our people who live in the country and carry on our agriculture.

Entering into the movement for agricultural education at a time when it had few friends, the department has greatly rejoiced in its rapid progress in recent years. Today the leaders of public opinion in this country, with the President of the United States at their head, are generally convinced that our schools should be brought into closer touch with our industries and that subjects relating to such a fundamental industry as agriculture should be included in the school curricula.

Responding to the demands of this movement, this great National Education Association is every year showing a deeper interest in measures looking to the improvement of education for our rural people. And today this Association is to take an important advance step in the organization of a Department of Rural and Agricultural Education.

It seems that we have reached a new stage in the development of this movement. Thus far it has been mainly a propaganda for reform. Now the time has come for the definite formulation of programs for these new phases of education and the undertaking of many experimental efforts to adapt the new courses to our general educational schemes. You, who are actually engaged in the work of our schools, are therefore banding yourselves together to study the problems of agricultural education and to make and put into effect plans for this new type of education.

There is reason for general congratulation that the cause of agricultural education has reached such a point. The Department of Agriculture is glad that you are met here for such a purpose. It desires to aid you in this great work in any way that it can. It now seems assured that the forces in favor of the improvement of the education of our rural people are to be greatly strengthened by a closer organization and sympathy. We may therefore hope for widespread and permanent results in the cause of agricultural education in the near future.

NOTES ON THE TRAINING OF TEACHERS OF AGRICULTURE

ELMER ELLSWORTH BROWN, UNITED STATES COMMISSIONER OF EDUCATION

[*An Abstract*]

Commissioner Brown urged that in the training of teachers of agriculture both the scientific and the pedagogical purpose should be kept steadily in view. He expressed confidence that effective co-operation could be maintained in such education between scientific specialists on the one hand, and pedagogical teachers on the other hand. He referred to Senate bill 3392, "to provide for the advancement of instruction in agriculture, manual training and home economics in the state normal schools of the United States."

This bill, said Commissioner Brown, is one of several which have been introduced at this session of Congress, providing for national aid to education in the several states, and particularly for national aid as regards education in agriculture, home economics and other industrial subjects. The fact that several bills touching in different ways upon this subject have been brought before Congress is a clear indication of public interest in this matter.

Principle involved.—The principle involved in the granting of such aid to the states by the general government has already found definite lodgment in the policy of the national government, as shown by the appropriations made under the second Morrill act, of 1890, and the Nelson amendment of 1907, providing for a more complete endowment and support of agricultural and mechanical colleges. It is generally agreed that the working of this principle, in its bearing on the support of the land-grant colleges, has been extremely beneficial. One indication of the value of such appropriations is seen in the fact that they have encouraged rather than retarded the support of these state institutions by the several state governments.

The information at hand in the Bureau of Education shows that in the year 1896 these land-grant colleges received in the aggregate 29 per cent. of their support from the national government. Ten years later, in 1906, owing to the increase of state appropriations, this proportion of their support from federal funds was reduced to 15.4 per cent. In this ten-year period the congressional grant was increased by 19 per cent.

Increase in state aid.—Continuing, Commissioner Brown said: In the same time the amount which these institutions received from their several states was increased by about 240 per cent. Whereas in 1896 twenty-five of these institutions received more than one-half of their support from the national government, in 1906 only fifteen received more than one-half of their support from the national government. These figures show a wholesome tendency. They would seem to indicate that the granting of national aid for the promotion of education might safely be extended to other classes of institutions, provided it can be shown that there is a national need that these institutions be advanced more rapidly in their educational efficiency than they can be advanced without such national aid. The land-grant colleges were intended to meet what was clearly a national need, that of institutions in all of the states which should promote agricultural improvement by providing the higher grades of agricultural instruction.

This had been found to be an extremely difficult undertaking. Even with the encouragement by the first Morrill act, 1862, the development of these institutions was painfully slow. Since the granting of an annual appropriation for their better support, under the second Morrill act, their usefulness has been very rapidly extended and increased. During the period since 1890, however, industrial changes have gone forward with great rapidity, the tendency of our rural population to gravitate toward the cities has continued, and the need of a better industrial education for our city populations has been emphasized by the increasing severity of world competition. For all of these reasons the problem of a better education of an industrial type, in both country and city, has steadily become more acute.

Federal assistance needed.—It is extremely doubtful whether these growing needs can be met in the near future in a majority of the states unless the encouragement of federal appropriations be added to the efforts of the states and of local communities. There is, however, good reason to hope that any appropriations which may be made to this end by the national government will encourage and promote such provision by states and communities as will in good measure meet the need. Commissioner Brown, in concluding, said: I would recommend that, as a preliminary to any new federal appropriation for educational purposes in the several states, a special inquiry be instituted by Congress to cover the points indicated, and any other items which may properly enter into a plan of federal appropriation for educational purposes.

"In my judgment a large saving would be effected even if such an inquiry should occupy from one to two years of time and involve an expenditure of from fifty to one hundred thousand dollars." The speaker also called attention to the fact that certain modifications should be made in Senate bill 3392 before it is put upon its passage.

CO-OPERATION OF STATE AGRICULTURAL COLLEGES AND STATE NORMAL SCHOOLS

I. KENYON L. BUTTERFIELD, PRESIDENT MASSACHUSETTS AGRICULTURAL COLLEGE AMHERST, MASS.

In 1905 Governor W. L. Douglas, of Massachusetts, appointed a state Commission on Industrial Education, of which Hon. Carroll D. Wright was chairman, for the purpose of investigating the needs of the commonwealth with respect to industrial education, and of reporting a plan of operations which would meet the need. That Commission presented to the legislature of 1906 a strikingly complete and extremely valuable printed report, a document destined to become a classic in the literature of the subject.

Agriculture as a phase of industrial education was fully recognized in this report, and among other recommendations of the Commission was one for the establishment of a normal department at the Massachusetts Agricultural College for the purpose of giving instruction to teachers who desire to teach elementary agriculture in the public schools. This was the result of careful consideration of the methods and facilities for the training of teachers to teach agriculture. The Commission had discussed the feasibility of such instruction in the state normal schools, in a proposed special normal school for agriculture, and in the agricultural college. They decided that the greatest economy and efficiency would be subserved by the establishment of a normal department in agriculture at the agricultural college.

In accordance with this report, the legislature established such a department and in 1907 made an appropriation of $5,000 per year to carry out the law. In the same year the college organized a Department of Agricultural Education and appointed as full professor William R. Hart, of Nebraska. Instruction to the regular students of the college is given in this department. For teachers already in service a Summer School of Agriculture was held at the college in 1907.

This decision of the Commission and the establishment of the Department of Agricultural Education and of the Summer School of Agriculture at the college, of course, raised the question, What shall the normal schools do with reference to work of this type? Shall they refrain entirely from such instruction, shall they develop courses parallel to those offered at the college, or shall they give courses supplemental to those at the college?

This question was brought up for further consideration thru a proposition advanced by Principal F. F. Murdock, of the Massachusetts State Normal School at North Adams, that the agricultural college and the normal school should co-operate in the training of grade teachers for work in elementary agriculture, and if possible in supervision of agriculture and nature-study. The proposition in brief was: (1) That the college should engage an instructor and supervisor of elementary agriculture who should give a portion of his time to the instruction of students at the normal school, another portion to the supervision of those schools in Berkshire County which the normal school is endeavoring to assist in the introduction of agriculture, and the remaining time to such instruction in the agricultural college and general supervision and assistance to the teachers of the state as circumstances will permit. (2) That the normal school should contribute its facilities of a science department, a garden of two and a half acres, and the children in the training school.

The principle involved in this proposed scheme of co-operation is substantially this: Agriculture is recognized as a distinct subject, and one possessing, even in its elementary work, strong technical aspects. Hence it will be differentiated in scope, purpose, and method of approach, from the nature-work of the lower grades, and even from some phases of school gardening. It seems to follow, therefore, that the agricultural college, by reason of its equipment, its atmosphere, and its teaching force, is the proper place for the instruction of teachers in the subject-matter of agriculture.

On the other hand, the normal school, because of its purpose, its facilities, and its teaching body, is the proper place for the study of the child and for practice in teaching or, to put it more exactly, is the proper place for the development of the material and methods of instruction with special reference to the mental needs and capacities of the child. The agricultural college emphasizes the technical aspect, the subject side; the normal school emphasizes the pedagogical aspect, the child side. This does not mean that the agricultural college usually ignores the pedagogical, nor the normal school usually ignores the technical, aspect of the question. Obviously there is no sharp line of demarkation, but obviously also the spirit and atmosphere of both schools, differing in emphasis, are both needed for the thoro development of the plan. It is to be observed, moreover, that this plan has to do with elementary agriculture. The question of instruction in high-school agriculture has not thus far been considered in the scheme of co-operation, tho the agricultural college is providing for such instruction.

I have hesitated to outline this plan because it is at present only a plan. But if the legislature, acting according to the wish of the state Board of Education and of the Board of Trustees of the Massachusetts Agricultural College, appropriates additional funds, this plan will go into effect approximately April 1. Nevertheless, I have used this proposed and tentative plan for the purpose of this discussion because I think it involves two fundamental principles, namely: (1) That the emphasis in the agricultural college and the emphasis in the typical normal school, with respect to the training of teachers to teach elementary agriculture, will differ one from the other, tho the division is not sharply marked. Both are complementary and both are vital. (2) That the natural and desirable method of training teachers of elementary agriculture involves a measure of co-operation between the two institutions.

The development of methods remains largely for the future. There will doubtless be some exchange of pupils. There probably will be exchange of teachers. And even if nothing more is done than that the college instructor whose special field is agriculture shall assist at the normal school and in overseeing the efforts to introduce elementary agriculture into the schools, the principle will be recognized and generous co-operation will be secured.

II. ALFRED BAYLISS, PRINCIPAL WESTERN ILLINOIS STATE NORMAL SCHOOL, MACOMB, ILL.

I know nothing which I can contribute to this discussion likely to be of more value than a brief account of an instance of rather close co-operation already established between the College of Agriculture of the State University of Illinois and the normal school with which I am connected.

At present such work as we are attempting in agriculture is in charge of our instructor in biology (Mr. J. T. Johnson), who, as a side line, while an instructor at the university, nearly completed a full course in the agricultural college. Because of the friendly relations existing between our instructor and the agricultural college faculty there was not the slightest difficulty in arranging for a co-operative soil-experiment field on the normal-school campus. The ground set apart for a beginning is the S.E. 2½ acres of the S.E. 10 of the N.E. 40 of the N.W. ¼ of Sec. 36, Twp. 6 N., R. 3 W. of the fourth principal meridian. The soil is a gray silt loam, natural timber land, representing quite a large area of land in the upper Illinois glaciation. The plans to be used in conducting the field experiment were prepared in detail at the college, under the immediate direction of Dr. C. G. Hopkins, the professor of agronomy, who personally saw to it that the field was properly laid out, tiled, and that all other initial steps were rightly taken. The plans are duplicates of those used in the experiments in soil fertility at the experiment station at the college. The normal school is responsible for the field operations and the bookkeeping, for both of which the most precise directions have been supplied. Samples of the soil have been taken to the agricultural college and stored for comparison with others to be taken from the same plots eight to twenty years hence.

This experiment field is divided into forty plots, each one rod square, and each surrounded by a protecting border one-fourth of a rod wide. These plots are arranged in two divisions, so mapped and numbered that any plot may readily be located and referred to. There are four series of five plots each in each division, and the plan involves a four-year rotation of corn, oats, wheat, and clover hay. The two divisions make it possible to have each crop represented in duplicate every year.

The treatment proposed in each division is as follows:

For the first division—
Plot No. 1.—No treatment.
Plot No. 2.—Legume treatment (turning back to the soil everything grown upon the land excepting grains and clover seed).
Plot No. 3.—Legume, lime.
Plot No. 4.—Legume, lime, phosphorus.
Plot No. 5.—Legume, lime, phosphorus, potassium.

For the second division —
Plot No. 1.—No treatment.
Plot No. 2.—Manure.
Plot No. 3.—Manure, lime.
Plot No. 4.—Manure, lime, phosphorus.
Plot No. 5.—Manure, lime, phosphorus, potassium.

This, it will be seen, provides for (1) a system of grain farming in which the humus and the nitrogen are to be maintained by plowing legume crops and the residue of other crops, such as the stalks of the corn crop and possibly the straw of the oats and wheat crops, and all of the clover crop except the seed; and (2) a system of live-stock farming in which the crops are all removed from the land, including the corn stalks, straw, and clover hay, while farm manure is to be returned in proportion to the crops produced.

Further detail is unnecessary at this time and place. It should be added, however, that there is not the least doubt that when we get this line of work well in hand, the agricultural college will be equally ready and willing to start and direct us in any other advisable line. Our present thought is that dairy husbandry will be next, and that may be followed by some lines of plant breeding. Moreover, to the credit of its co-operative instincts be it said, the agricultural college has located at least one of its branch stations in juxtaposition to a particularly enterprising and progressive country school, allowing the school certain special privileges in connection therewith, making it hardly less a co-operative station than the one just described.

Co-operation in this spirit is merely the natural articulation of parts of the public-school system, and would be one means of making such a measure as Senate Bill 3392 fully efficient.

DISCUSSION

William M. Stewart, president State Normal School, Salt Lake City, Utah.—The primary need for the successful teaching of agriculture is competent teachers. Neither the agricultural college nor the normal school can alone adequately prepare teachers for giving scientific instruction in agriculture in the common schools.

This statement is made in view of two main considerations: (1) The difficulty and newness of agriculture as a subject of school study; (2) The fact that the teaching of agriculture requires the services of a better-trained teacher academically, and better-trained in psychology, pedagogy, and methods, than does the teaching of any of the subjects now included in the school curriculum.

The teaching of agriculture embraces the whole of the teacher's art. It is a pervasive and exacting subject. It embodies the most important aspects of character building; for in teaching the pupils scientifically to plant, cultivate, and harvest farm crops, and as a community to be responsible for the proper care of a school garden, we are training them in some of the most valuable lessons in life. Honesty is here not merely inculcated, but is put into actual operation. Industry is not here explained and commended, but is realized. There is no doubt, in such case, of the worth and the necessity of industry, regularity, etc., for their effects are apparent in the product. The great lessons of civic righteousness and personal honor stand out in bold relief just as soon as a school engages in co-operative work connected with the real activities of life.

The special difficulty in teaching agriculture arises from the fact that it is a part of, or may be correlated with, almost every other subject taught in the schools. It implies botany, zoölogy, chemistry, physics, physiology, geology, meteorology; it is reading, language, geography, arithmetic; it is manual training and domestic science; or at least it is so closely related to all these subjects that a pedagogical knowledge of the entire curriculum is necessary in order to enable the teacher successfully to teach agriculture in the public schools. It is also commerce, business, and transportation. A teacher cannot merely learn agriculture and then teach it. He should learn the pedagogy of all the branches upon which it depends and with which it is so vitally connected; and yet he must be specially trained in the science and art of agriculture, or he will fail to realize its practical or vocational value. The great masses of the people are and ever will be producers of commodities.

The school garden, a nature laboratory necessary to every school, is the most convenient, certain, and attractive form known for the creation of products for sale by school pupils. Each child coming from the public schools should have acquired something in the way of an occupation that he can do well. Simple branches of horticulture are easily within his reach, since they require only methodical application and not a high degree of either hand skill or mental training and balance. The vocational value of agriculture, domestic science, etc., therefore, gives to the child some preparation of real merit which will do much to prepare him for life.

But this work has more than vocational value; even the city teacher should be thus trained. Life in the city is so artificial that to have the city schools do some of the nature work and garden practice will do much toward preventing the city boy or girl from becoming formally bookish and unpractical. Besides, the city needs the school garden and the elements of agriculture, for it may happen that the talent of the city child is for agriculture. If so, this kind of training will find out his talents and instincts as well as train them. Why should not the city boy be permitted to go to the country if he so desires, as well as the country boy to the city? The open-air exercises, the muscular and mental activity, and the change from school routine to the varied motor activities of the garden, all conduce to make this form of training one of the best, not only from the educational but from the hygienic standpoint, ever undertaken in the schools.

Of course the great question remains, Is it practicable? Can it be done? Can teachers be so trained and every little school have at least a garden for its laboratory? We believe so. The school garden part is so simple, so easy of realization in some degree when once understood, that no school, however small or poorly equipped, need fail in the work of doing some agriculture when the teacher is competent. So the vital need is competent teachers.

Let us now consider how this work of training teachers can best be done, so as to insure the efficiency of the teacher as well as to maintain economy of expenditure in his preparation for agricultural education. We have no doubt, judging from our own experience, and from the very nature of the subject, that the most economical and efficient plan is to have the agricultural college and the normal school departments of the university, and to have them associated in one place and combined on one campus under one administration. Such a combination would furnish expert knowledge and skill needed for the training not only of agricultural teachers but for all others as well; the equipment of all the schools would be available for each, and expensive duplication avoided. Each can help the other so much that there would be an enormous gain in efficiency, and saving in expenditure. But the great reason is the advantage which this union affords for the superior training of teachers. Expert knowledge in many lines of science, natural history, and business are required for successful agricultural practices, while the necessary psychological and pedagogical training of teachers cannot, except at great expense, be supplied by any one of these institutions standing by itself. It is not enough that the public-school teacher shall know agriculture, he must be primarily a teacher; he must know the best normal methods; his view-point must be that of the child. While this is true of all the subjects taught in the public schools, it is particularly and in a paramount way true of the science and art of agriculture.

Above any other subject in the school curriculum, agriculture presents special difficulties in teaching; and more than any other subject, it requires the successful application of the principles of sound pedagogy in order to be successful. All the ingenuity, tact, and even devices of good teachers must be here employed, or we shall fail. The great problem will be how to sustain the interest of the child in the work, for notwithstanding the beauty of the science and the naturalness of the art of agriculture, children will lose interest in it simply thru waiting for its results, unless the subject-matter is made, by pedagogical methods, to conform to the natural interests of the child. The growth of plants is very slow. The results in farming are not attained until the end of the season; often not then Soils in and of themselves may be very uninteresting things; fertilizers still more so; and the same may be said of some of the farm processes. The interest of the adult is easily sustained, because he can foresee the result. To him the end means money and profit; but the child in the early years of his school life cannot foresee the end. He has little interest in profit or loss; he will not, he cannot, wait for his result until the plant matures and the crop is sold. In order to sustain his interest, the results must be immediate, as they appear to him to be in grammar, arithmetic, and any other school subject. It is here that the art of teaching will always be indispensable. The more mere knowledge any agricultural expert has, the more dangerous he might become in the schoolroom from this very fact; for if he lack the teacher's art, his superior knowledge of agriculture can but serve to carry him and his instruction still farther away from child-interest and thus discourage and disgust the child with the subject. It is for these reasons that the normal school must train teachers to teach agriculture; for scientific farming is the most complex of the nature arts and sciences. The adult learns it in some direct and condensed way.

If the normal work for training teachers of agriculture should be added to the agricultural college, the latter would need to incorporate into its organization a complete normal school. If agriculture is to be added to the normal school, the latter must have the services of agricultural teachers as part of its faculty. The first alternative would require the agricultural college to duplicate everything the normal school does. The second alternative would require that the normal school should secure the services of several agricultural experts for at least a part of their time, as is now the case at the Utah State Normal School. This year we have found it sufficient to receive from the agricultural college the services of an expert on soils and farm crops, of another on economic entomology, of another on horticulture, and of another on birds. We get the services of one professor one day each week thru the school year. This is, of course, in addition to the regular nature-study instruction, which requires two days more per week, and is given by the regular professor and director of nature-study in the State Normal School of Utah.

In those states in which the three institutions, the university, the agricultural college and the normal school, are entirely separate and apart from one another, the agricultural college should maintain a branch experiment station on the campus of the normal school, so that the specialists in charge of that station would also be available for use by the normal school. This co-operative work between the two schools could be managed as extension work on the part of the agricultural college, just as the farmers' institutes are part of its extension work. This normal institute, as a species of extension work, would be a center for this kind of activity, and would no doubt accomplish more than many or perhaps all the other institutes devoted directly to the interests of farmers. That is, in its final results it would train the teachers and they would disseminate what they had learned; and thus the benefits to agriculture would be enormously multiplied.

The government in its appropriation to agricultural colleges should set apart a specific portion of the appropriation to be used in state normal-school work, as the officers of the state normal school should direct; but the expert work should all be done by the agricultural-college faculty. It would be indispensable that the financial aid devoted to the purposes of normal instruction should not be uncertain and must not be left to the discretion of the agricultural college. The management of the normal curriculum must be with the normal school. It knows best just when, and also how much agricultural instruction should be given to the prospective teachers of the community. This is precisely its business and function. It will prescribe, broadly, the subject; but the details and character of the work to be given must be determined by the agricultural college experts, who alone can keep abreast of recent progress in agricultural science.

The third alternative is the attempt to train teachers in agriculture without any cooperation between the two schools. This is possible, but expensive and unsatisfactory. No doubt certain recreative garden work could be done; and also some nature work; but this is not sufficient and would result in failure, so far as efficient training of teachers in agriculture is concerned, or it would result in a gradual duplication of work and equipment of the agricultural college.

The Utah State Normal School is on most friendly terms with the State Agricultural College which has promised all the aid possible. We hope in the immediate future to have an agricultural experiment station located on the normal-school campus.

Our school garden now comprises six acres under close cultivation. An expert gardener gives his entire time to it, with some assistance during the growing season. This land is cultivated as a commercial garden. It is expected to pay its own way. Our director of nature-study maintains that the best lesson in farming will be the concrete demonstration of how a farm, garden, or orchard may be made to pay; and therefore that the garden as a whole and each separate class garden should be cultivated for the sake of profit, as well as for the sake of beauty, recreation, and education.

We have found already that we could, if we had the facilities, base most of the school work upon the activities that center round the school garden. Our nature-work in the fall begins with the study of weeds, and each grade is expected to identify its assigned groups. Certain cultivated products and also certain wild plants, insects, and birds are assigned to each grade. Along with these laboratory studies, the actual harvesting of small farm crops is given. The children sell the crops harvested from their special garden, put the money in the bank, figure the cost of the product, make out the bills, and carry on all the business and banking essential to such work. In this subject, they study a specimen rather than a book. The specimen is their book. What they tell about it is their oral recitation; what they write about it is their writing-work and English composition; their drawing or modeling of it constitutes their art; their estimates of its value and calculations made about it form their arithmetic. The raising of it and the preparation of the utensils necessary in its handling make up part of their manual training. The same vegetables cooked in the domestic-science classes furnish part of the material for their work in cooking.

The arguments presented aim to sustain:

1. The great importance of agricultural education, and the extreme difficulty in successfully teaching it in the common schools, both elementary and secondary; also that the teacher of agriculture, more than the teacher of any other subject in the curriculum, should be professionally trained for his work.

2. That this training can best be done in a university which combines with it on one site the agricultural and the normal school.

3 That if the normal school undertakes the work of training agricultural teachers

by itself on a separate site, it should have, to be most successful, the co-operation of the agricultural college.

4. That for the agricultural college to train competent teachers it would be necessary to duplicate the equipment and faculty of the normal school.

In conclusion I will say that the movement for industrial education will make its most rapid and successful advance along the line of agriculture. To give all teachers at least some agricultural training will not only mean a revolution in our educational system but it will give such an impetus to agriculture as our country has never seen. I have great faith in this movement as a wonderful stimulus in socializing school activities, that is, in making the school organic with life—the ultimate aim of our democratic system of education.

CO-OPERATION BETWEEN THE UNITED STATES DEPARTMENT OF AGRICULTURE AND STATE SCHOOL AUTHORITIES IN PROMOTING AGRICULTURAL EDUCATION

DICK J. CROSBY, EXPERT IN AGRICULTURAL EDUCATION, UNITED STATES OFFICE OF EXPERIMENT STATIONS, WASHINGTON, D. C.

In the promotion of agricultural education there are many problems which will require the combined efforts of all the educational forces in this country to solve. The movement for agricultural education is so large and withal so new, it has come upon us so suddenly, that we find ourselves unprepared to meet all of the demands it makes upon us. It comes nearer to being a national movement than any other recent movement in education. The combined legislation of the federal Congress and the legislatures of the several states and territories has built up a national system of agricultural education, which includes the following units: (1) The National Bureau of Education, which acts in an advisory capacity with all of the units concerning the expenditure of federal funds for education and serves as a general clearing-house of education; (2) the United States Department of Agriculture which acts in an advisory capacity on matters relating to the expenditure of federal funds for research in agriculture and on matters relating to agricultural education in particular, and is itself engaged in research to increase the fund of knowledge in agriculture; (3) state agricultural experiment stations, engaged in adding to the sum of knowledge concerning agriculture, and (4) state agricultural colleges engaged in educating some 60,000 of our young men and young women along lines of agriculture, mechanic arts, and home economics. For the support of these state research and educational institutions the federal government is now expending about two and one-half million dollars annually and the several states and territories are taxing themselves to the amount of over eight millions. The government is also expending over nine millions annually for the work of its Department of Agriculture and Bureau of Education, so that altogether something over twenty million dollars are expended annually to increase our fund of information on industrial subjects, largely agricultural.

Of late the agricultural-education movement has grown at a rate that is truly astounding. The agricultural colleges, which for some twenty-five years waged a fierce struggle for the right to be—a right questioned not only by the older types of colleges but also to a surprising extent by the farmers themselves—have in recent years found themselves and gained the loyal support of their constituents. Agricultural education has become so popular that it is no longer sufficient for the agricultural colleges to turn out leaders to take positions of influence and trust in the colleges, stations, and other educational and research institutions. They must also train young men in a more practical way for the work of the farm, the dairy, the orchard, and the forest, or else there must be special agricultural schools for this work. Several secondary agricultural schools have come into the field and struck good, clean furrows; others are following. But this is not all-satisfying. There must also be some instruction regarding this great fundamental industry of our country in the public high schools, and even in the grammar schools where conditions are favorable.

You can see at once how, with every added demand along this line, the problems of teaching and administration multiply. There are teachers to train—who shall do it, the colleges or the normal schools or both? What sort of courses are suitable for the training of teachers in this new line of instruction? For it is new, something far different than instruction in language, mathematics, physics, or chemistry. There are courses of study to prepare for these grammar schools, public high schools, technical agricultural high schools, and agricultural colleges. Who shall do this—each local institution for itself or some central agency or some combination of forces representing both the local and the central agencies?

CO-OPERATION AS IT NOW EXISTS

Fortunately for us who have drifted into the current at nearly flood tide, some of these problems began to appear about twenty years ago and steps were then taken to give them careful consideration. Soon after Congress appropriated funds for agricultural experiment stations a national organization known as the Association of American Agricultural Colleges and Experiment Stations was formed. Membership in this association was granted to each agricultural college and each agricultural experiment station, to the National Bureau of Education, to the United States Department of Agriculture, and to the Office of Experiment Stations which was organized about this time to represent the department in its relations with these institutions. This association brought together the leaders in agricultural education from all parts of the country and brought about conferences and discussions which were very helpful in showing these men what they were not doing. The need of some fundamental study of the pedagogics of agriculture became more and more apparent, and finally, about 1895, the association appointed a standing committee on methods of teaching agriculture, of which the director of the Office of Experiment Stations has been a member from the first. This committee made its first report in 1896 and has made ten reports since that time, all of which have been published by the Department of Agriculture and are now available. There have been seven reports on college courses in agriculture, two on secondary courses in agriculture, and two on elementary courses in agriculture. The courses outlined in these reports were not intended to be followed implicitly by all of the colleges and schools in the different states and territories but were aimed to form the basis of a systematic and progressive treatment of the subject of agriculture, and as such they have been eminently successful. It is doubtful if any institution has followed these courses in their entirety, but their influence is plainly discernible in nearly every college and school course where agriculture is taught.

This co-operation with the Association of American Agricultural Colleges and Experiment Stations has brought the Department of Agriculture more and more into the field of agricultural education as a co-ordinating agency, a sort of clearing-house for information on the subject. Thru its Office of Experiment Stations the department has helped the association to conduct a graduate school of agriculture where methods of teaching and some of the more fundamental problems in agricultural education are discussed by a corps of the most noted experts to be found in this country and Europe. It has also aided the agricultural experiment stations, colleges, and schools to secure suitable investigators and teachers. The Office of Experiment Stations maintains a card catalogue of about 1,500 names containing a record of the training and experience of teachers and investigators in agriculture and allied subjects, to which it can refer readily when requests for candidates are received from any of the institutions.

One of the important functions of the Office of Experiment Stations is that of collecting and disseminating information on agricultural education and research in this country and abroad. It has a staff of twelve experts who are constantly engaged in examining the agricultural literature of the world and preparing it for publication in such form as to make it widely available in this country. The office publishes a technical journal known as the *Experiment Station Record* which contains a record of the results of every experiment conducted by an experiment station in this country as well as the more important investigations of some eight hundred experiment stations in foreign countries. In this publication there is a department of agricultural education in which textbooks, bulletins, circulars, and important newspaper articles on this subject are reviewed and some of the more important notes concerning the progress of agricultural education are given. The office also publishes a series of popular bulletins known as "Experiment Station Work," in which the results of investigations appear in a form suitable for the use of the non-technical reader—the farmer, and his children in school. Then there are various technical bulletins on the investigations of the office, circulars embodying the reports of the Committee on Instruction in Agriculture and other publications containing information of popular interest.

The other bureaus of the Department of Agriculture are also doing many things which are of service to the cause of agricultural education. The Bureau of Plant Industry, for example, has efficiently aided the school-garden movement by distributing seeds, by preparing publications, and by supervising the school-garden work of the schools of the District of Columbia, part of which is done on the department grounds. The Bureau of Soils has aided in the location of farms connected with agricultural schools. All the bureaus are issuing many publications which are of use to teachers and students, and it is the policy of the department to furnish them to the schools as freely as existing legislation will permit. The Office of Experiment Stations has the advice and assistance of all the bureaus of the department in the preparation of its publications on agricultural education, and it should also be said that the present Secretary and Assistant Secretary of Agriculture have done all in their power to advance the interests of agricultural education and make the department broadly useful in this cause.

As a natural result of the accumulation of data in the Office of Experiment Stations concerning the teaching of agriculture in this country and abroad, educators in all parts of the country have come to look upon the office as a source of information and advice whenever new problems in agricultural education arise. The office is frequently called upon to aid the state school authorities in planning new schools of agriculture and courses in nature-study and elementary agriculture for the primary and secondary public schools, for normal schools, and even for private and denominational schools and colleges.

As an example of this kind of work the office was asked to send a representative to California to meet the teachers and farmers of the state in a large convention at the State Agricultural College and confer with them regarding the introduction of agriculture into the school system of that state. The director of the office, Dr. A. C. True, attended this meeting and outlined briefly his views, which were that instruction in nature-study and school gardening should be introduced into the first six years of the primary school, with more formal instruction in agriculture during the remaining two years of the grammar school and thruout a portion at least of the high-school course. He recommended also the establishment of additional agricultural high schools to meet the demand for comprehensive training in agriculture on the part of students who could not take the college course in agriculture. He was then asked to prepare a plan for introducing agriculture into the public schools, which he did, and as a result of this work a number of county superintendents have taken steps to introduce agriculture into all of their schools and have succeeded in getting many of their teachers to undertake this work. Provision has also been made for two state agricultural high schools since Dr. True's visit to California.

As another example I might speak of our work in Georgia. The legislature of the state passed an act providing for eleven agricultural schools in Georgia. Those who were charged with the duty of organizing these schools had a pretty good notion of what they wanted to accomplish but were without experience in arranging the details of courses of study and outlining laboratory work and field exercises. The Office of Experiment Stations was asked to assist in this work and sent its expert in agricultural education to Georgia to study the situation and confer with the governor, the state superintendent of public instruction, the chancellor of the state university, and the president of the State Normal School at Milledgeville, concerning courses of study. After the conference our expert was asked to outline at considerable length courses in agriculture, horticulture, and forestry, with laboratory work and field exercises, which he did. These courses were submitted to the dean of the College of Agriculture, the governor of the state, and the board of trustees of the school of agriculture and formally adopted by them.

Just now we are co-operating with the county school authorities in Cecil County, Maryland, in developing a small country high school in which agricultural teaching is a prominent feature. The man who is engaged in that work is sent out during June, July, and August to aid in training teachers of agriculture in summer schools and teachers' institutes. Apparently our friends in the different states would like it if we could supply them with four or five such men.

And so we might multiply examples, but these are sufficient to show the nature of the work which the Office of Experiment Stations is called upon to do in co-operation with state school authorities. There are a hundred and one other things concerning which the advice of the office is solicited. Our correspondence on agricultural education is very large and is growing every day. Scarcely a day passes that we do not send out from 100 to 1,000 or 1,500 publications to be used in schools.

LINES OF FUTURE DEVELOPMENT

With the present interest in agricultural education and the rapid growth of the movement for the introduction of agriculture into secondary and elementary schools and its attendant problem of training teachers for this work, it is evident that for many years to come there will be a large demand for just such clearing-house work as the Office of Experiment Stations has been engaged in during the past ten or fifteen years. The work of outlining courses of study for different types of schools has only just begun. Thus far in our work for secondary and elementary schools we have dealt only with the subject of agronomy. There still remain for consideration such subjects as horticulture, forestry, animal industry, dairying, farm machinery, farm mechanics, and agricultural engineering, all of which are important and will be taken up as soon as the resources of the office will permit. The work of training teachers to take up the agricultural instruction in normal schools, agricultural high schools, and public schools, with its many attendant problems, has only just begun, but the correspondence and the requests for literature on this subject are already large. Plans for agricultural high schools and for the organization of courses in agriculture in the public high schools and in consolidated rural schools are being made in all parts of the country, and everywhere new problems are presented concerning which the advice of this office is sought. This work will continue and will grow until agricultural courses in all of these different schools attended by the sons and daughters of the farmers have been organized on an efficient basis.

The department will also be called upon for many years to come to aid the agricultural colleges in bringing the results of the investigations made by this department and the experiment stations into pedagogical form for use in the agricultural colleges and these different schools. This work is now proceeding too slowly to keep pace with the accumulation of material and too slowly, as indicated above, to keep pace with the development of institutions giving instruction in agriculture. It is now generally recognized that no other agency than the Department of Agriculture, which maintains an intimate organic relationship with the state institutions for agricultural education and research, is so well equipped to perform this important function. As the Commissioner of Education said at the celebration of the fiftieth anniversary of the Michigan Agricultural College, "The national Department of Agriculture is undoubtedly to continue its remarkably wide and influential work, its expert investigations, the issuance of manifold and vastly useful publications, and its furtherance of all manner of agricultural education and research in the several states."

Finally, it seems to me that the Department of Agriculture is called upon to continue indefinitely its work of bringing together and publishing for wide distribution the results of successful experiments, successful methods of teaching agriculture, in this country and abroad. It can do this more economically than any other agency can do it. It is already examining the agricultural literature of the world, and it is in a position to bring to the attention of those school authorities who are just starting out in experiments along this line the results of successful efforts elsewhere. It has ready access to much literature that is unavailable to the general public or even to the state agricultural institutions and thus is enabled to give wide publicity to many experiments in agricultural education which might otherwise remain buried indefinitely in library alcoves. The department needs the assistance of all these other educational agencies. It needs to know their problems, to learn of successful experiments, in order that the results may be published abroad; also of failures, so that warning of impending difficulties may be given. One of the most helpful educational conferences I ever attended was one held recently in Atlanta, where much time was given to reports of failures and their causes. One of the most difficult things which your committee on industrial education has had to do has been to get definite information regarding real success and real failure in teaching agriculture. Too many of the records that have been written up have been records of anticipation. What we need, what the department needs, what the National Education Association needs, is examples of things made possible thru successful achievement and of things to be avoided because of almost inevitable failure.

The department is ready and anxious at all times and in every way possible to assist state and county school officers, teachers' associations, and individual teachers along lines of agricultural education. It does not seek to do the things which the different states can just as well do for themselves. It recognizes the fact that the education of its youth is primarily a function of the state. It will never knowingly invade the field of the Bureau of Education, with which it is co-operating and with which it hopes to co-operate more fully and freely in the future. It seeks only to fulfill to the utmost of its ability its function as a central agency to co-operate with all local agencies, whatever their type or size or official standing, which are engaged in the great movement of educating the people of the country to live happy, contended, and useful lives in the country.

DISCUSSION

E. C. Bishop, deputy state superintendent of public instruction, Lincoln, Nebraska.—I shall make no attempt to discuss as a matter of fact the co-operation now existing between national and state authorities in promoting agricultural education. I undertake to discuss only the need and the possibilities of such co-operation.

In line with a custom somewhat general with the individual who discourses on a subject which is larger than himself—tho not necessarily larger than his interest and his ambition—I shall begin and may continue speaking mostly of something else.

I may not be orthodox in conclusions; I may be laboring under the disadvantages of a lack of a workable knowledge; what appears to me a morning mist may be a Newfoundland fog, and my discrimination of objective points may be dimmed by a wrong focus; but what knowledge and experience has come to me, whatever insight is mine, whatever conclusions I may reach—all is given, cautiously, yet as freely as the occasion permits.

Agriculture is the newest in its application, the most important, and, excepting geography, the most widespread of the sciences which directly concern our people. Not only the student of botany, of physics, of chemistry, of zoölogy, of geology, of astronomy, geography, and the other allied sciences; but likewise, the student of social, political, and economic science is called to contribute his best thought and effort to the development of the science of agriculture.

Agriculture has existed as an undeveloped science since the establishment of the first garden. Abel was doubtless the first man to feel seriously the need of the development of agriculture as an art. We have too many farmers yet who are farmers after the manner of Adam—forced to farm for a livelihood, but too willing to let the seeding, the tilling, the harvesting, the storing, and the utilization of products take care of themselves or be left in charge of an ambitious son. We yet have too many farmers—rather agriculturalists—who are satisfied with a scientific knowledge of agricultural facts, so far as they may be known. We need more farmers who study the science of agriculture and then practice the art of farming—which art is the applying with skillful hand of the known scientific principles of agriculture as an art, as an industry, as a business, as a profession, and as a social factor in the making of the home, the development of the state, and the control of national activities. The increased attention given in recent years to education in agriculture is only the natural development of an educational principle which found recognition in the reaction which came from the one-sided effort toward an all-classical education with the early renaissance.

The almost exclusive literary idea in education, supplemented by application of the principle that to give the boy only what he will need and can appreciate when he becomes a man, constitutes misconception and neglect of the nature of the growing boy, which neglect leads to undesirable results. Under stress of the discussion of certain moral and ethical questions we frequently applaud the general statement that the boy is only a little man and is to be treated as such. Were we to apply fully such attitude in the education of the boy, the resultant product would be neither the desired man nor a satisfactory grown-up boy. Since recognition of the principle that the child, not the man, must be the object of study and that man comes to his best development from cultivation of the values on hand at whatever stage his instruction begins, we continue to search for additional avenues of approach.

Not the child in the school, not the child in the workshop, not the child as he will be when he becomes a man, not the child of the future; but it is the child of now, in his own home, which concerns us. And we cannot wait until the child enters college or until he enters high school; these are the times when ideals have already been formed and when home, ties have been too much broken. Our work must begin with the fireside age, when a child is a living interrogation point in a body of ceaseless activity. What are the influences that concern a child? If rightly directed the concerns that influence a child are: the duties in the home, the tasks that must be performed, the products of toil, the resultant enjoyment of effort; the relation of toil, effort, of the complete home life, to life outside and beyond the home.

In an agricultural community the study of agriculture is necessary, not only for economic reasons, but necessary for safe character formation and for proper civic development. In such a community the science of agriculture includes not only the study of plant and animal life and their adaptations, but it also includes the study of cookery, needlework, and all the home economic and manual arts which are directly concerned in the maintenance of a home in the community.

May I repeat, then, that the study of agriculture in its application to home and community life must reach the child before life-ideals are formed and before home ties are broken. This means that to be most effective, agricultural schools or courses in agriculture must be so conveniently located and so accessible that the many rather than the few may attend. It means that agricultural literature must go into the home; it means that agricultural literature which enters the home must go into the hands of the child and into the library rather than into the wastebasket, unread. If one-half of the investigations made by national and state agricultural departments were known to the members of all families which should be concerned; if one-half of the good literature issued by our agricultural departments of nation and state were read and read intelligently in families of agricultural communities, such an uplift would come that we should not deem it necessary to spend so great time in discussions such as these.

We have much good material. We have many forces working for the promotion of agricultural education. The present problem is largely one of utilizing that which we now have. I shall mention seven points which, in my estimation, largely govern present possible results.

1. Agriculture as a science is not so fully developed, so definitely outlined and so well applied as other sciences which are made a part of public-school education.
2. Agriculture is not properly recognized as a science and as an art by the great body of the people whom it should most concern.
3. The place of agriculture in the curricula of public schools, colleges, and universities has not been so definitely fixed as that of other sciences. Agriculture is now in the pioneer stage, fighting its way to recognition as a part of the public-school system.
4. In many communities where it is most needed, the study of agriculture is opposed by the beneficiaries.
5. Teachers are attempting to teach agriculture without having made sufficient preparation therefor.
6. Textbooks adapted to the needs of the schools and to the needs of those preparing to teach are not yet sufficiently in general circulation. Such textbooks will be provided when we are better settled in our method of procedure.
7. Agricultural education is yet in the experimental stage. We are asking each of the other: "How can it best be done?"

The afore-mentioned facts are sufficient evidence of the need of co-operation of all agencies concerned in the promotion of agricultural education.

In those subjects which have won their way to recognition and have become in a measure adjusted to their places, we can fail in co-operation with less disaster to the cause. But where the movement is new, where the position is not settled, where the conditions were not fully defined, where we know not our own minds and hesitate to believe in the minds of others, we need the closest co-operation that may be secured in order successfully to establish and promote the work.

The great work done by our national and state departments of agriculture, to be properly appreciated and to become effective among the great mass of the people who should be interested and helped thereby, must be not only wisely distributed but well read. The question of distribution is much more easily settled than the question of reading. Printed matter, both valuable and worthless, is now so plentiful and so widely and freely distributed that the average home receives more printed literature than the members thereof have time or inclination to read, let alone study.

To be effective our good literature must have a proper hearing. Such hearing can be secured thru the agency of two points of approach. First, agricultural literature must be popularized, not only in simplicity of language, but in treatment of subjects related to home and community life. Second, the recipient of such literature must be in a receptive mood.

The first proposition includes the preparation of literature dealing with scientific agriculture from the standpoint of the scientist, the practical farmer, the child, the school teacher, and the home-keeper. Here is where co-operation is necessary in order that the valuable information gained thru departments of agriculture, experiment stations, and pedagogic sources may be conveyed in proper forms of expression to the readers concerned.

The second proposition, that of preparing the reader for the reception of available literature and for inducing the beneficiary to take advantage of the opportunities open—this is the greater proposition and the one in which we most need unlimited co-operation and extensive supervision and direction.

You will pardon me for referring to conditions in our own state, but I must speak of that I know best. In the state of Nebraska the forces that contribute most largely to agricultural education are: The State Board of Agriculture, the University of Nebraska, the state and county organization of farmers' institutes, the state and county departments of public instruction and various ladies' auxiliaries and women's clubs. In the high school or any other school which is properly equipped for teaching agriculture, manual training, and home economics we have no serious problem of co-operation. Proper equipment means full apparatus and other means of carrying on the work, and well-trained teachers. Our great problem is the teaching of agriculture, home economics, and manual training to the great mass of the people who do not have access to well-equipped schools. To wait for the consolidated school and for the establishment in town and city schools of properly conducted courses in these three arts means delay beyond the forbearance of those who are demanding that this form of industrial education be given proper emphasis.

It is entirely proper for us to look to ideal conditions and to direct our activities in accordance with the best ideals, but we shall never reach the ideal by dreaming of the future and by planning our present action on a basis of the ideal future. Present action should look to the future but must be based on the means of attaining the ideal, rather than upon the ideal itself. If this generation is to see agriculture, manual training, and home economics bearing good results in the homes of our people, we must take our schools to the homes of the people. We must reach the present generation thru the medium of the rising generation. The son and the daughter, thru the efforts of the teacher, can lead the father and the mother where the father and the mother thru all the agencies within their power cannot lead the son and daughter. We need the co-operation of all those agencies which have to do with the increasing of our fund of knowledge and with its distribution thru the experiment station, the department of agriculture, state and county departments of public instruction, the college, university, normal school, high school, the town and rural school, the farmers' institute, the women's club, and other women's auxiliaries.

The extension of this work thru the agency of the public schools in our state has been effected largely thru the co-operation of the state university, which includes the state organization of farmers' institutes, the state Board of Agriculture, the state Department of Public Instruction and the state normal schools—the Department of Public Instruction exercising largely the function of management, the university providing literature and speakers, the State Board of Agriculture providing financial assistance, the state normal schools training teachers. This co-operation has been most effective in popularizing the science and art of agriculture and home economics among all classes of people. The secret of successful co-operation lies largely in a definite understanding of the part to be contributed by each co-operative agency. The greatest need is a central medium for learning the needs of each locality and for collecting, harmonizing, popularizing, and distributing the knowledge at hand. This central medium or authority should be provided with the means to gather, popularize, and distribute. This includes financial support, which financial support should secure supervising authority and sufficient force to take to every community the benefits of the combined results of the research, investigations, and experiences of all the agencies instrumental in advancing this form of education.

Each school district should have, close at hand, the means of knowing what has been done, what may be done, and what may not be done so far as experience may direct; whether such direction comes from the neighboring district, a distant district in the county, in the state, or in the nation. State supervision should be sufficient in quality and in quantity that every inquiring locality may bring to the local field the experiences, successes, and failures which have been made under like conditions.

The relation of the school district to the county, and of the county to the state, should continue in the relation of the state to the nation. If every state whose ambitious people in one or more localities desire to advance the cause of agricultural education could have the assistance on the home ground of national supervision, or rather national experience gained from the experiences of other localities in other states, we would avoid in great measure the repetition of mistakes and would bring early success where now too often success must repeatedly win its way thru common errors which are repeated in the pioneer stage of any good work. If our national experts in the various lines of agricultural education could be reinforced in number and in the increase of specialization of departments, all properly co-ordinated, so that every state could call for this assistance on the many and various occasions when such assistance is needed, the problems of agricultural education would assume a definite form that would soon become more easily solved.

I close with these thoughts: First, to secure satisfactory and reasonably early results we must recognize existing conditions and work from these conditions. Second, the various agencies for promoting agricultural education in state and nation must provide an adequate centralizing agency for utilizing co-operative instruments of activity in the agricultural field of education.

Geo. B. Cook, superintendent of schools, Hot Springs, Ark.—The present meeting of the Department of Superintendence marks a well-defined forward step in the ever-broadening educational field that spreads out from year to year showing continually greater possibilities for the public schools. I look upon the organization of the Department of Rural and Agricultural Education and the prominence given this extensive phase of educational work as one of the most important and far-reaching steps ever taken by the National Education Association, not only because it is important within itself in placing the seal of highest approval upon this branch of practical training, but because this movement is in accord with the spirit of the times.

There has been a steadily increasing movement for several years, or rather a series of movements, independent one from another arising from different parts of the United States, each with the same great purpose in view yet approaching the problem of better training in rural schools and practical agricultural education from widely divergent standpoints. This has become almost the paramount economical question, involving in the most direct manner the entire social fabric of the nation. It is a matter of the food supply; the production of the raw material; the development of the nation and the recognition of the most important, valuable, and necessary factor of national life—the producer.

This question has become admittedly important from every standpoint. Congress has seriously discussed bills carrying vast appropriations for the purpose of placing agricultural education within reach of the farmer boy. Various states have already not only established their agricultural colleges but have encouraged practical training along this line in the district school. The national government has established its experiment stations and the Department of Agriculture has sent its experts over the nation and followed these with tons of literature. The most important commercial organizations have aided in this work, realizing that the development of the country, an increase in the products, means wealth for them as well as for the individual and the nation at large. Tables have been carefully prepared showing that improved methods and trained minds have multiplied the wealth-producing ratio for the citizens of entire commonwealths. These are some of the factors that have brought about such a wide and active interest among the citizenship of the nation, as well as its educational leaders, in the development of rural and agricultural education.

The growth of our public-school system has been continual and ever forward. Universities and colleges, schools of special and of general training, dot the entire land. Every state has its great educational institutions. The urban schools have developed with wonderful strides. Cities, great and small, point with pride to elegant, modern school edifices, splendid equipment and comprehensive courses. Scarcely a town of any pretension but has its high school. The system of urban education is not perfect but it is abreast with the times.

This condition is not so generally true with the rural schools. In the more thickly settled portions of the nation, many advantages have been given the rural schools in recent years and practical training in husbandry has been taken up with unfailing success. This is just the beginning, the dawn of an era that means "a square deal" for the country boys and girls thruout the nation, in the South and West and North and East.

This movement will mean for many southern and western states just what it may be made to mean for Arkansas—that many of the educational advantages enjoyed only in the cities and larger towns will be given the children of the rural district schools; that the training in these schools will become more and more practical; that the education received in school will fit them to live in comfort and in happiness upon the farm; that the honor due peculiarly to the producer will not only be shown in empty sentiment but better methods, and better understanding of agriculture in its many branches will bring greater remuneration to the farmer and, at the same time, equip him better to defend his rights and maintain the higher station to which he is so justly entitled.

I do not intend to convey the idea that there is to be a revolution in our educational system nor that these conditions will come about in full realization within a given period of time; but I do fully believe that the development toward these conditions will be noticeably rapid when conducted along gradual, rational, constructive lines that will in no way disturb the harmony of our commonwealth or the benefits of our school system which are enjoyed so largely at present.

The value of our public schools cannot be overestimated and the possibilities for increasing their direct benefits to the nation and to our state are only circumscribed by limitations which the very training given in the public schools will hasten to remove at a compound ratio. The beginning has already been made and the work can be carried on by careful attention to details, accurate business administration of our public-school affairs, and by conservation of the school funds, rather than by added expense.

THE NATIONAL COUNCIL OF EDUCATION

CONSTITUTION

PREAMBLE

The National Council of Education shall have for its object the consideration and discussion of educational questions of general interest and public importance, and the presentation, thru printed reports, of the substance of the discussions and the conclusions formulated. It shall be its object to reach and disseminate correct thinking on educational questions; and, for this purpose, it shall be the aim of the Council, in conducting its discussions, to define and state with accuracy the different views and theories on the subject under consideration, and, secondly, to discover and represent fairly the grounds and reasons for each theory or view, so far as to show, as completely as possible, the genesis of opinion on the subject. It shall be the duty of the Council, in pursuance of this object, to encourage from all its members the most careful statement of differences in opinion, together with the completest statement of grounds for the same. It shall further require the careful preservation and presentation of the individual differences of opinion, whenever grounds have been furnished for the same by members of the Council. It shall invite the freest discussion and embody the new suggestions developed by such discussions. Any member making such suggestion or objection may put in writing his view, and the grounds therefor, and furnish the same to the secretary for the records of the Council. It shall prepare, thru its president, an annual report to the National Educational Association, setting forth the questions considered by the Council during the previous year, and placing before the Association, in succinct form, the work accomplished. It shall embody in this report a survey of those educational topics which seem to call for any action on the part of the Association. The Council shall appoint, out of its own number, committees representing the several departments of education, and thereby facilitate the exchange of opinion among its members on such special topics as demanded the attention of the profession or of the public.

ARTICLE I—MEMBERSHIP

1. The National Council of Education shall consist of sixty members, selected from the membership of the National Educational Association. Any member of the Association identified with educational work is eligible to membership in the Council, and, after the first election, such membership shall continue for six years, except as hereinafter provided.

2. In the year 1885 the Board of Directors shall elect eight members—four members for six years, two for four years, and two for two years, and the Council shall elect eight members—five members for six years, two for four years, and one for two years; and annually thereafter the Board of Directors shall elect five members and the Council five members, each member, with the exception hereinafter provided for (sec. 5), to serve six years, or until his successor is elected.

3. The annual election of members of the Council shall be held in connection with the annual meetings of the Association. If the Board of Directors shall fail, for any reason, to fill its quota of members annually, the vacancy or vacancies shall be filled by the Council.

4. The term of service of the several members of the Council chosen at the first election shall be arranged by the Executive Committee of the Council.

5. The absence of a member from two consecutive annual meetings of the Council shall be considered equivalent to resignation of membership, and the Council shall fill

vacancies caused by absence from the Council as herein defined, as well as vacancies caused by death or resignation, for the unexpired term. All persons who have belonged to the Council shall, on the expiration of their membership, become honorary members, with the privilege of attending its regular sessions and participating in its discussions. No state shall be represented in the Council by more than eight members.

ARTICLE II—QUALIFICATION FOR MEMBERSHIP

All members of the Council shall be either life or active members of the National Educational Association.

ARTICLE III—MEETINGS

There shall be a regular annual meeting of the Council held at the same place as the meeting of the National Educational Association, and at least two days previous to this meeting. There may be special meetings of the Council, subject to the call of the Executive Committee, but the attendance at these meetings shall be entirely voluntary. A majority of the Council shall constitute a quorum for the transaction of business at any meeting, whether regular or called; but any less number, exceeding eight members, may constitute a quorum for the transaction of business at the regular annual meeting, as defined in this article.

ARTICLE IV—THE WORK OF THE COUNCIL

The Council shall, from time to time, undertake to initiate, conduct, and guide the thoro investigation of important educational questions originating in the Council; also to conduct like investigations originating in the National Educational Association, or any of its departments, and requiring the expenditure of funds.

ARTICLE V—THE APPOINTMENT OF SPECIAL COMMITTEES AND EXPERTS

In the appointment of special committees, and in the selection of writers and speakers, it shall be the privilege of the Council to appoint such experts, whether members of the Council or not, as are deemed best qualified to conduct investigations.

ARTICLE VI—OFFICERS

At the annual election of officers in 1904 the president of the Council shall be elected for a term of three years, the vice-president for a term of two years, and the secretary for a term of one year; and thereafter annually the vacancy caused by the outgoing officers shall be filled by the election of one person for a term of three years.

It shall be the duty of the president of the Council to prepare, with the assistance and approval of the Executive Committee, such a program for the annual meeting as shall realize as fully as practicable the purposes for which the Council was organized and exists.

ARTICLE VII—STANDING COMMITTEES

1. There shall be four standing committees: an Executive Committee, a Committee on Membership, a Committee on Educational Progress, and a Committee on Investigations and Appropriations.

2. The Executive Committee shall be composed of the president of the Council and of three other members, whose terms of office shall be so arranged that one new member may be chosen each year, beginning with the year 1899.

3. It shall be the duty of the Executive Committee to provide an annual program by selecting, whenever feasible, subjects for investigation, and appointing committees to conduct such investigations. It shall be the duty of the Executive Committee to carry out the provisions contained in this constitution referring to volunteer and invited papers. It shall be the duty of the Executive Committee to provide a place on the program for the report on any investigation which may be ordered by the National Educational Association or its departments.

4. The Committee on Membership shall be composed of the president of the Council and six other members, whose terms of office shall be so arranged that two vacancies may be filled every year, beginning with 1899.

5. There shall be appointed annually a committee of one to submit, at the next meeting, a report on "Educational Progress during the Past Year," in which a survey of the important movements and events in education during the preceding year is given. This committee need not be selected from the members of the Council.

6. The Committee on Investigations and Appropriations shall be composed of nine members, whose terms of office shall be so arranged that three vacancies may be filled each year, beginning with 1903. No proposal to appoint a committee to undertake an educational investigation of any kind, and no proposal to ask the Board of Directors of the Association for an appropriation for any purpose, shall be acted upon until such proposal has been referred to this Committee on Investigations and Appropriations for report.

ARTICLE VIII—THE DUTIES OF THE COUNCIL

1. It shall be the duty of the Council to further the objects of the National Educational Association, and to use its best efforts to promote the cause of education in general.

2. The meetings of the Council shall be, for the most part, of a "round table" character.

ARTICLE IX—AMENDMENTS

This constitution may be altered or amended at a regular meeting of the Council, by a two-thirds vote of the members present, and any provisions may be waived at any regular meeting by unanimous consent.

By-laws not in violation of the constitution may be adopted by a two-thirds vote of the Council.

OFFICERS, STANDING COMMITTEES, MEMBERS

OFFICERS FOR 1908–9

JOSEPH SWAIN	Swarthmore, Pa	*President*	Term expires in 1910
JAMES M. GREEN	Trenton, N. J	*Vice-President*	Term expires in 1909
JOHN W. CARR	Dayton, Ohio	*Secretary*	Term expires in 1911

EXECUTIVE COMMITTEE

The President, *ex officio*, *chairman*

Elmer Ellsworth Brown	Washington, D. C.	Term expires in 1909
W. T. Harris	Washington, D. C.	Term expires in 1910
James M. Greenwood	Kansas City, Mo	Term expires in 1911

COMMITTEE ON MEMBERSHIP

The President, *ex officio*

W. T. Harris	Washington, D. C.	Term expires in 1909
Jesse F. Millspaugh	Los Angeles, Cal	Terms expires in 1909
Livingston C. Lord	Charleston, Ill	Term expires in 1910
I. C. McNeill	Memphis, Tenn	Term expires in 1910
Charles H. Keyes	Hartford, Conn	Term expires in 1911
James M. Greenwood, *chairman*	Kansas City, Mo	Term expires in 1911

COMMITTEE ON INVESTIGATIONS AND APPROPRIATIONS

James M. Greenwood, *chairman*	Kansas City, Mo	Term expires in 1909
Frank A. Fitzpatrick	Boston, Mass	Term expires in 1909
Elmer Ellsworth Brown	Washington, D. C.	Term expires in 1909
Augustus S. Downing	Albany, N. Y	Term expires in 1910
Lorenzo D. Harvey	Menomonie, Wis	Term expires in 1910
John H. Phillips	Birmingham, Ala	Term expires in 1910
Nicholas Murray Butler	New York, N. Y	Term expires in 1911
William H. Maxwell	New York, N. Y	Term expires in 1911
William O. Thompson	Columbus, Ohio	Term expires in 1911

MEMBERS

Elected by the Association	*Elected by the Council*
TERMS EXPIRE IN 1909	
W. T. Harris, Washington, D. C.	Miss N. Cropsey, Indianapolis, Ind.
Benjamin Ide Wheeler, Berkeley, Cal.	Lewis H. Jones, Ypsilanti, Mich.
William H. Maxwell, New York, N. Y.	Elmer Ellsworth Brown, Washington, D. C.
Edwin G. Cooley, Chicago, Ill.	William H. Black, Marshall, Mo.
Howard J. Rogers, Albany, N. Y.	Nicholas Murray Butler, New York, N. Y.
John MacDonald, Topeka, Kans.	Luther L. Wright, Lansing, Mich.
Alma L. Binzel, Menomonie, Wis.	George M. Philips, West Chester, Pa.
Morris Elmer Dailey, San José, Cal.	Edmund A. Jones, Columbus, Ohio
Silvanus L. Heeter, St. Paul, Minn.	John G. Thompson, Fitchburg, Mass.
Charles McKenny, Milwaukee, Wis.	Ernest E. Balcomb, Stillwater, Okla.
TERMS EXPIRE IN 1910	
John W. Cook, DeKalb, Ill.	Anna Tolman Smith, Washington, D. C.
David R. Boyd, Norman, Okla.	Williaw S. Sutton, Austin, Tex.
Lorenzo D. Harvey, Menomonie, Wis.	James H. Van Sickle, Baltimore, Md.
Edwin B. Craighead, New Orleans, La.	James B. Aswell, Natchitoches, La.
Carrol G. Pearse, Milwaukee, Wis.	Brown Ayers, Knoxville, Tenn.
Henry Snyder, Jersey City, N. J.	Robert J. Aley, Bloomington, Ind.
Katharine E. Dopp, Chicago, Ill.	Charles E. Chadsey, Denver, Colo.
Edwin E. Sparks, State College, Pa.	Paul H. Hanus, Cambridge, Mass.
Henry Suzzallo, New York, N. Y.	J. Stanley Brown, Joliet, Ill.
Henry C. Morrison, Concord, N. H.	P. P. Claxton, Knoxville, Tenn.
TERMS EXPIRE IN 1911	
William H. Bartholomew, Louisville, Ky.	Frank B. Cooper, Seattle, Wash.
Frank A. Fitzpatrick, Boston, Mass.	Joseph Swain, Swarthmore, Pa.
I. C. McNeill, Memphis, Tenn.	Nathan C. Schaeffer, Harrisburg, Pa.
E. Oram Lyte, Millersville, Pa.	Ben Blewett, St. Louis, Mo.
James M. Greenwood, Kansas City, Mo.	Z. X. Snyder, Greeley, Colo.
Estelle Reel, Washington, D. C.	John W. Abercrombie, University, Ala.
Theo. B. Noss, California, Pa.	B. W. Torreyson, Little Rock, Ark.
Julius I. Foust, Greensboro, N. C.	Frederick E. Bolton, Iowa City, Iowa
W. T. Carrington, Springfield, Mo.	Jane Addams, Chicago, Ill.
John J. Doyne, Little Rock, Ark.	William C. Bates, Cambridge, Mass.
TERMS EXPIRE IN 1912	
Thomas A. Mott, Richmond, Ind.	Ella Flagg Young, Chicago, Ill.
John H. Phillips, Birmingham, Ala.	Jasper N. Wilkinson, Muskogee, Okla.
Livingston C. Lord, Charleston, Ill.	William O. Thompson, Columbus, Ohio
James H. Baker, Boulder, Colo.	John W. Carr, Dayton, Ohio
Charles C. Van Liew, Chico, Cal.	Albert Salisbury, Whitewater, Wis.
Sarah Louise Arnold, Boston, Mass.	Grace C. Strachan, Brooklyn, N. Y.
James A. MacLean, Moscow, Idaho	Adelaide S. Baylor, Wabash, Ind.
Edward T. Fairchild, Topeka, Kans.	Carleton B. Gibson, Columbus, Ga.
Alfred Bayliss, Macomb, Ill.	John W. Olsen, St. Paul, Minn.
Ernest C. Moore, Los Angeles, Cal.	Oscar T. Corson, Columbus, Ohio
TERMS EXPIRE IN 1913	
James M. Green, Trenton, N. J.	William E. Hatch, New Bedford, Mass.
Augustus S. Downing, Albany, N. Y.	Bettie A. Dutton, Cleveland, Ohio
George B. Cook, Little Rock, Ark.	Charles H. Keyes, Hartford, Conn.
Stratton D. Brooks, Boston, Mass.	Andrew S. Draper, Albany, N. Y.
Edgar H. Mark, Louisville, Ky.	Clifford W. Barnes, Lake Forest, Ill.
Ida C. Bender, Buffalo, N. Y.	Mrs. Ellor Carlisle Ripley, Boston, Mass.
Henry B. Brown, Valparaiso, Ind.	Mrs. Edwin C. Grice, Philadelphia, Pa.
William O. Riddell, Des Moines, Iowa	John W. Withers, St. Louis, Mo.
A. C. Nelson, Salt Lake City, Utah	Thomas C. Miller, Charleston, W. Va.
Reed B. Teitrick, Harrisburg, Pa.	Frank B. Dyer, Cincinnati, Ohio

MEMBERS—*Continued*

TERMS EXPIRE IN 1914

Elected by the Association	*Elected by the Council*
Oscar J. Craig, Missoula, Mont.	William M. Davidson, Omaha, Nebr.
David Felmley, Normal, Ill.	Martin G. Brumbaugh, Philadelphia, Pa.
John R. Kirk, Kirksville, Mo.	Lloyd E. Wolfe, San Antonio, Tex.
David B. Johnson, Rock Hill, S. C.	James E. Russell, New York, N. Y.
Wales C. Martindale, Detroit, Mich.	Oliver S. Wescott, Chicago, Ill.
Mrs. Ellen H. Richards, Boston, Mass.	Julia Richman, New York, N. Y.
Arthur H. Chamberlain, Pasadena, Cal.	Mrs. Josephine Heermans, Kansas City, Mo.
M. Bates Stephens, Annapolis, Md.	Frank Strong, Lawrence, Kans.
Jacob A. Shawan, Columbus, Ohio	Edward C. Elliott, Madison, Wis.
James W. Crabtree, Peru, Nebr.	Homer H. Seerley, Cedar Falls, Iowa

HONORARY MEMBERS

Edwin A. Alderman, Charlottesville, Va.
Earl Barnes, Montclair, N. J.
Alexander Graham Bell, Washington, D. C.
D. Bemis, Spokane, Wash.
Thomas W. Bicknell, Providence, R. I.
Richard G. Boone, Yonkers, N. Y.
Albert G. Boyden, Bridgewater, Mass.
Anna C. Brackett, New York, N. Y.
John E. Bradley, Randolph, Mass.
Edward Brooks, Philadelphia, Pa.
George P. Brown, Bloomington, Ill.
William L. Bryan, Bloomington, Ind.
Matthew H. Buckham, Burlington, Vt.
David N. Camp, New Britain, Conn.
James H. Canfield, New York, N. Y.
Oscar H. Cooper, Abilene, Tex.
William J. Corthell, Gorham, Maine.
E. W. Coy, Cincinnati, Ohio
Charles DeGarmo, Ithaca, N. Y.
Robert E. Denfeld, Duluth, Minn.
John Dewey, New York, N. Y.
V. C. Dibble, Charleston, S. C.
Charles W. Eliot, Cambridge, Mass.
William W. Folwell, Minneapolis, Minn.
James A. Foshay, Los Angeles, Cal.
William K. Fowler, Lincoln, Nebr.
H. B. Frissell, Hampton, Va.
R. B. Fulton, Miller School P. O., Va.
Charles B. Gilbert, Englewood, N. J.
Daniel C. Gilman, Baltimore, Md.
Aaron Gove, Denver, Colo.
Lewis C. Greenlee, Denver, Colo.
James C. Greenough, Westfield, Mass.
W. N. Hailmann, Chicago, Ill.
G. Stanley Hall, Worcester, Mass.
Walter L. Hervey, New York, N. Y.
Albert Ross Hill, Columbia, Mo.
J. George Hodgins, Toronto, Can.
James H. Hoose, Pasadena, Cal.
George H. Howison, Berkeley, Cal.
James L. Hughes, Toronto, Can.
Thomas Hunter, New York, N. Y.
Ellen Hyde, Farmington, Mass.
Edmund J. James, Champaign, Ill.
Charles M. Jordan, Minneapolis, Minn.
E. S. Joynes, Columbia, S. C.
Calvin N. Kendall, Indianapolis, Ind.
David L. Kiehle, Preston, Minn.
William F. King, Mt. Vernon, Iowa
Henry M. Leipziger, New York, N. Y.
James MacAlister, Philadelphia, Pa.
Francis A. March, Easton, Pa.
George H. Martin, West Lynn, Mass.
Charles A. McMurray, DeKalb, Ill.
Jesse F. Millspaugh, Los Angeles, Cal.
William A. Mowry, Hyde Park, Mass.
Mary E. Nicholson, Indianapolis, Ind.
John M. Ordway, New Orleans, La.
Warren D. Parker, River Falls, Wis.
John B. Peaslee, Cincinnati, Ohio
Josiah L. Pickard, Brunswick, Maine
Edward T. Pierce, Los Angeles, Cal.
James R. Preston, Jackson, Miss.
John T. Prince, West Newton, Mass.
George J. Ramsey, Danville, Ky.
William D. Ruffner, Lexington, Va.
Ellen C. Sabin, Milwaukee, Wis.
Henry Sabin, Des Moines, Iowa
J. G. Schurman, Ithaca, N. Y.
H. E. Shepard, Baltimore, Md.
Irwin Shepard, Winona, Minn.
Edgar A. Singer, Philadelphia, Pa.
Charles R. Skinner, New York, N. Y
Euler B. Smith, Athens, Ga.
J. Lancaster Spalding, Peoria, Ill.
Homer D. Sprague, Newton, Mass.
J. W. Stearns, San Diego, Cal.
Lucia Stickney, Cleveland, Ohio
Grace Bibb Sudborough, Omaha, Neb
John Swett, Martinez, Cal.
A. R. Taylor, Decatur, Ill.
W. R. Thigpen, Savannah, Ga.
L. S. Thompson, Jersey City, N. J.
Charles F. Thwing, Cleveland, Ohio
Julia S. Tutwiler, Livingstone, Ala.
Delia L. Williams, Delaware, Ohio
J. Ormond Wilson, Washington, D. C.
Lightner Witmer, Philadelphia, Pa.
Harry K. Wolfe, Lincoln, Neb.
Calvin M. Woodward, St. Louis, Mo

DECEASED MEMBERS

Robert Allen	1894
Israel W. Andrews	1888
Joseph Baldwin	1899
Henry Barnard	1900
William N. Barringer	1907
Newton Bateman	1897
Reuben S. Bingham	1902
John T. Buchanan	1908
Norman A. Calkins	1895
Aaron L. Chapin	1892
Clara Conway	1904
J. L. M. Curry	1902
N. R. H. Dawson	1895
John W. Dickinson	1901
Larkin Dunton	1899
John Eaton	1906
W. R. Garrett	1903
Samuel S. Greene	1883
John M. Gregory	1898
George T. Fairchild	1901
Daniel B. Hagar	1896
R. H. Halsey	1907
John Hancock	1891
William R. Harper	1906
William D. Henkle	1882
Edwin C. Hewitt	1905
Elnathan E. Higbee	1889
Frank A. Hill	1903
Burke A. Hinsdale	1900
Ira G. Hoitt	1905
George Howland	1892
John S. Irwin	1901
Henry N. James	1901
H. S. Jones	1900
Thomas Kirkland	1898
Albert Lane	1906
Merrick Lyon	1888
Albert P. Marble	1906
James McCosh	1894
Charles D. McIver	1906
Thomas J. Morgan	1902
Lemuel Moss	1905
M. A. Newell	1893
Birdsey G. Northrop	1898
Edward Olney	1886
Gustavus J. Orr	1888
Francis W. Parker	1902
W. H. Payne	1907
S. S. Parr	1900
Selim H. Peabody	1902
William F. Phelps	1907
John D. Philbrick	1885
M. S. Cooper Poucher	1900
William B. Powell	1904
Zalmon Richards	1899
Andrew J. Rickoff	1899
Charles C. Rounds	1901
Edward R. Shaw	1903
William E. Sheldon	1900
James A. Smart	1900
F. Louis Soldan	1908
R. W. Stevenson	1893
Thomas B. Stockwell	1906
Eli T. Tappan	1888
Horace S. Tarbell	1904
Charles O. Thompson	1885
H. S. Thompson	1904
Arnold Tompkins	1906
James P. Wickersham	1891
S. G. Williams	1900
Emerson E. White	1902

SECRETARY'S MINUTES

FIRST SESSION.—Monday Forenoon, June 29, 1908

The Council met in the Old Stone Church, Cleveland, Ohio, at 9:30 A.M. and was called to order by President Joseph Swain.

The minutes of the Los Angeles meeting were approved as printed in the annual report of the general association.

The introductory address of the president of the Council was then presented by Joseph Swain.

On motion the address of the president was referred to a special committee consisting of Charles H. Keyes, James M. Greenwood, and Elmer Ellsworth Brown.

"The Preliminary Report of the Committee on the Scarcity of Teachers" was presented by the chairman of the committee, I. C. McNeill.

The leader of the discussion of this report was David Felmley, Normal, Ill., who had prepared the report submitted by the committee.

The discussion of this report was continued by the following members: James M. Green, Charles H. Keyes, James E. Russell, Ella Flagg Young, William O. Thompson, Frank A. Fitzpatrick, and Z. X. Snyder.

The discussion was closed by David Felmley and I. C. McNeill.

"The Preliminary Report of the Committee on Provision for Exceptional Children in the Public Schools" was presented by the chairman of the committee, James H. Van Sickle.

Discussion by the following members of the committee: Frank A. Fitzpatrick and L. E. Wolfe.

General discussion by O. P. Cornman, district superintendent of schools, Philadelphia, Pa.; M. P. E. Groszmann, of Plainfield, N. J.; E. R. Johnstone, superintendent of training school for feeble-minded children, Vineland, N. J.; Paul Kreuzpointer, Altoona, Pa.; George M. Elmendorf; Ella Flagg Young, of Chicago; Walter S. Cornell, medical inspector of schools, Philadelphia, Pa.

SECOND SESSION.—MONDAY AFTERNOON, JUNE 29, 1908

The Council met in joint session with the general association at the Hippodrome at 2:30 P.M. After the welcome addresses and responses to the general association, the president of the Council, Joseph Swain, introduced Charles F. Thwing, president of Western Reserve University, who presented the address on the "Educational Progress of the Year."

THIRD SESSION.—TUESDAY MORNING, JUNE 30, 1908

The Third Session of the Council met in the Old Stone Church at 9:30 A.M., President Swain presiding.

The president announced that the Committee on Membership would also act as a committee on nominations.

The first topic of the morning, "The Preliminary Report of the Committee on Moral Training in the Public Schools," was presented by different members of the committee as follows:

a) The Problem Stated, by Martin G. Brumbaugh, Philadelphia, Pa.

b) "The Treatment of the Pupil," by John W. Carr, Dayton, Ohio.

c) "Influence of the Home and School Life," by James M. Greenwood, Kansas City, Mo.

d) "Relation of Moral to Religious Training," by Clifford W. Barnes, Lake Forest, Ill.

General discussion followed by: Miss Nebraska Cropsey, Indianapolis, Ind.; Livingston C. Lord, Charleston, Ill.; W. H. Bartholomew, Louisville, Ky.; Henry Neumann, New York City, and John W. Cook, DeKalb, Ill.

The second topic, "Distinctive Functions of University, College, and Normal Schools in the Preparation of Teachers," was presented by Elmer Ellsworth Brown, United States Commissioner of Education, Washington, D. C.

General discussion by the following persons: John W. Cook, DeKalb, Ill.; James E. Russell, New York City, John R. Kirk, Kirksville, Mo.

The third topic, "The Culture Element in Education," was presented by James H. Baker, Boulder, Colo., chairman of the committee appointed to consider this subject.

The discussion was opened by Dr. William T. Harris, Washington, D. C.

The discussion was continued by T. A. Mott, Richmond, Ind.; W. H. Black, Marshall, Mo.; G. Stanley Hall, Worcester, Mass.; W. T. Harris, and James H. Baker.

The president appointed the following persons to act at the current session as members of the Committee on Membership: C. H. Keyes in place of E. O. Lyte and J. W. Carr instead of J. F. Millspaugh.

FOURTH SESSION.—9:30 A.M. JULY 1, 1908

The fourth session of the Council met in the Sunday-school room of the Old Stone Church at 9:30 A.M., President Swain presiding.

The chairman of the Committee on Investigations and Appropriations, J. M. Greenwood, presented the report of the committee which had been presented to the Board of Directors. The committee recommended that all appropriations for investigations be held in abeyance. On motion these recommendations were approved.

A resolution was adopted requesting the publication of the preliminary reports of special committees appointed by the Council. A special committee, consisting of J. H. Baker, W. O. Thompson, and A. S. Downing, was appointed to present this request to the board of directors of the National Education Association.

The President of the Council was authorized to appoint four additional members of the committee on the "Culture Element in Education."

The Report of the Committee on "Co-operation with Educational Organizations in Other Countries" was presented by William T. Harris, Ex-commissioner of Education of the United States, Elmer Ellsworth Brown, Commissioner of Education of the United States.

The discussion was opened by Miss Anna Tolman Smith, Washington, D. C. Other persons taking part in the discussion were: Basanta K. Roy, Calcutta, India, Clifford W. Barnes, Lake Forest, Ill. The discussion was closed by W. T. Harris.

A memorial address on the life of F. Louis Soldan by Superintendent Ben Blewett, St. Louis, Mo., was then presented.

By consent of the Council, the memorial address on Rufus H. Halsey was deferred in order that the members of the Council might attend the meeting of the active members of the Association.

FIFTH SESSION.—Thursday Forenoon, July 2, 1908

The Council met promptly at 9:30 o'clock A.M. in the Auditorium of Old Stone Church, President Swain presiding.

The memorial address on Rufus H. Halsey was given by J. A. H. Keith, president of the State Normal School, Oshkosh, Wis.

The report of the "Committee on Industrial Education for Rural Schools" was submitted by the chairman, L. D. Harvey, Menomonie, Wis.

The discussion was participated in by the following persons: D. B. Johnson, of South Carolina, J. M. Green, of New Jersey, L. E. Wolfe, of Texas, Charles A. McMurry, of Illinois, Brown Ayres, of Tennessee, George B. McLean of Iowa, Elmer Ellsworth Brown, United States Commissioner of Education.

The discussion was closed by L. D. Harvey of Wisconsin.

The subject, "Household Science in Elementary and Secondary Schools," was presented by Mrs. Ellen H. Richards, instructor in sanitary chemistry, Massachusetts Institute of Technology, Boston, Mass.

The discussion of the above subject was participated in by the following persons: A. S. Downing, Albany, N. Y., W. H. Maxwell, New York City. The discussion was closed by Mrs. Richards.

The committee on membership submitted the following report:

To the National Council:

Your Committee on Nominations of new members of the Council recommend the appointment of the following persons to succeed themselves:

William M. Davidson, Omaha, Nebr., term to expire 1914.
Martin G. Brumbaugh, Philadelphia, Pa., term to expire 1914.
Lloyd E. Wolfe, San Antonio, Tex., term to expire 1914.
James E. Russell, New York City, term to expire 1914.
Oliver S. Westcott, Chicago, Ill., term to expire 1914.

The following persons were recommended to fill vacancies for the unexpired terms of the following named persons who have been by the provisions of the Constitution transferred to the list of honorary members by reason of their absence from two consecutive meetings of the Council:

James B. Aswell, Baton Rouge, La., to fill the place of Albert Ross Hill, term expiring in 1910.

Ben Blewett, St. Louis, Mo., to fill the place of L. C. Greenlee, term expiring 1911.

Albert Salisbury, Whitewater, Wis., to fill the place of G. H. Martin, term expiring in 1912.

W. S. Sutton, Texas, to fill the place of Mrs. Josephine Heermans, term expiring in 1910.

Respectfully submitted,

J. M. Greenwood, *Chairman*
C. H. Keyes
W. T. Harris
J. W. Carr
I. C. McNeill
Joseph Swain
L. C. Lord
Committee on Membership

On motion the above report of the Committee on Membership was adopted and the persons named therein duly elected members of the Council.

Owing to the change in the Constitution of the General Association the Committee on Membership submitted an additional report as follows:

SPECIAL REPORT OF THE COMMITTEE ON MEMBERSHIP

To the National Council of Education:

By order of the general association the membership of the National Council was changed from sixty active members to one hundred and twenty and the Council was authorized to elect thirty new members—five whose term should expire in one year; five, in two years; five in three years; five in four years; five in five years; and five in six years. The committee recommends the election of the following:

FOR ONE YEAR; TERM ENDING 1909

Luther L. Wright, Lansing, Mich.
George M. Philips, West Chester, Pa.
Edmund A. Jones, Columbus, Ohio
John G. Thompson, Fitchburg, Mass.
Ernest E. Balcomb, Stillwater, Okla.

FOR TWO YEARS; TERM ENDING 1910

Robert J. Aley, Bloomington, Ind.
Charles E. Chadsey, Denver, Colo.
Paul H. Hanus, Cambridge, Mass.
J. Stanley Brown, Joliet, Ill.
P. P. Claxton, Knoxville, Tenn.

FOR THREE YEARS; TERM ENDING 1911

John W. Abercrombie, University, Ala.
B. W. Torreyson, Little Rock, Ark.
Frederick E. Bolton, Iowa City, Iowa
Jane Addams, Chicago, Ill.
William C. Bates, Cambridge, Mass.

FOR FOUR YEARS; TERM ENDING 1912

Grace C. Strachan, Brooklyn, N. Y.
Adelaide S. Baylor, Wabash, Ind.
Carleton B. Gibson, Columbus, Ga.
John W. Olsen, St. Paul, Minn.
Oscar T. Corson, Columbus, Ohio

FOR FIVE YEARS; TERM ENDING 1913

Mrs. Ellor Carlisle Ripley, Boston, Mass.
Mrs. Edwin C. Grice, Philadelphia, Pa.
John W. Withers, St. Louis, Mo.
Thomas C. Miller, Charleston, W. Va.
Frank B. Dyer, Cincinnati, Ohio

FOR SIX YEARS; TERM ENDING 1914

Julia Richman, New York, N. Y.
Mrs. Josephine Heermans, Kansas City, Mo.
Frank Strong, Lawrence, Kans.
Edward C. Elliott, Madison, Wis.
Homer H. Seerley, Cedar Falls, Iowa

(Signed) J. M. GREENWOOD, *Chairman*
C. H. KEYES
W. T. HARRIS
J. W. CARR
I. C. MCNEILL
JOSEPH SWAIN
L. C. LORD
Committee on Membership

On motion the above-named persons were unanimously elected members of the Council.

The Committee on Membership which was also appointed the Nominating Committee submitted the following report:

To the National Council:

Your Committee on Membership, which was also appointed the Nominating Committee, recommend the election of the following:

OFFICERS OF THE COUNCIL

John W. Carr, to succeed himself as secretary of the Council, for a term of three years, term ending 1911.

James M. Greenwood, to succeed himself as a member of the Executive Committee of the Council for a term of three years, term ending 1911.

Charles H. Keyes, to succeed E. O. Lyte as a member of the Nominating Committee for a term of three years, term ending 1911.

James M. Greenwood, to succeed himself as a member of the Committee on Membership for a term of three years, term ending 1911.

MEMBERS OF COMMITTEE ON INVESTIGATIONS AND APPROPRIATIONS

Nicholas Murray Butler to succeed himself for a term of three years, term expiring in 1911.

William O. Thompson to succeed F. Louis Soldan for a term of three years, term expiring in 1911.

William H. Maxwell for a term of three years, term expiring in 1911.

Respectfully submitted

J. M. Greenwood, *Chairman*
W. T. Harris
I. C. McNeill
Joseph Swain
Committee on Membership

The following resolutions offered by Elmer Ellsworth Brown were adopted:

Resolved, That this Council urges upon Congress the importance of a careful investigation of the needs and conditions of education in all parts of the country as a preliminary to any new grant of national aid for education, to the end that the established educational systems of the several states may be fostered and encouraged.

Resolved, That this Council recommends to the Board of Directors of the National Education Asociation that a committee, consisting of the president and secretary of the Association and the president of this Council, be empowered to appoint from time to time suitable representatives of the Association to the meetings of important educational societies in foreign countries, such appointment to involve no expenditure of the funds of the Association.

The special committee appointed to consider the address of the president submitted the following report:

Your committee to which was referred the president's address have given the same careful consideration, and beg to submit the following recommendations:

1. We advise that the general plan of the program for this year be followed for next year.

2. We approve the recommendation for the establishment of one or more traveling fellowships but realize that the present is an inopportune year to take steps toward the immediate inauguration of this work.

3. We advise that immediate steps be taken to amend the constitution on the two points suggested by the President—namely: (*a*) Eliminate the requirements that the president of the Council shall make an annual report to the National Education Association, and (*b*) Strike out the phrase in Art. 3, sec. 3, requiring this Council to meet at least two days before the meeting of the National Educational Association.

4. We recommend the adoption of a rule providing that no paper or report from this Council shall hereafter be printed in the *Volume of Proceedings* unless at least three copies of a synopsis of the same be in the hands of the president of the Council at least thirty days before its annual meeting.

Charles H. Keyes, *Chairman*
J. M. Greenwood
Elmer Ellsworth Brown

On motion the above report was unanimously adopted.

After full discussion the members of the Council agreed on the following, relative to meetings in the future:

1. That seats for one hundred persons be reserved for members of the Council and that no persons other than members of Council be permitted to occupy them at any time.

2. That a room with a seating capacity not to exceed five hundred be provided for the meetings of the Council.

After thanking the members of the Council for their kindness and courtesy, the president declared the Council adjourned.

J. W. Carr, *Secretary*

PAPERS AND DISCUSSIONS

PRELIMINARY STATEMENT

THE PRESIDENT OF THE COUNCIL, JOSEPH SWAIN, PRESIDENT OF SWARTHMORE COLLEGE, SWARTHMORE, PA.

As long as the president of the National Council of Education served but one year, he could not be expected to formulate a policy for the consideration of the Council concerning its work. He of necessity followed precedent. In 1904 at St. Louis the term of the president of the Council was changed to three years and our present honored commissioner of education, Dr. Elmer Ellsworth Brown, was chosen the first president to serve the longer term. In his opening statement at the last meeting of this body in Los Angeles, Commissioner Brown, after three years' experience as president, formulated a policy which was approved by the Council. The program for this year has been made as nearly as possible in accordance with that policy. It is important in order that the program may be in harmony with the best thought of the Council, that there should be an opportunity for suggestions by the members each year which may be followed so far as possible the following year. It is also important that the Council shall have clearly before it what its working policy is, and for this reason I shall briefly restate this policy with any suggestions and inquiries which may occur to me and I will ask that the whole matter, in accordance with the precedent of last year, be referred for consideration to a committee who shall report at an early meeting of the Council. In this way the Executive Committee may have the benefits of the best judgment of the whole Council in making the program for the next meeting.

The By-Laws of the National Education Association provide that—

> The National Council of Education shall have for its object the consideration and discussion of educational questions of public and professional interest; the proposal to the Board of Directors, from time to time, of suitable subjects for investigation and research, and the recommendation of the amount of appropriations that should be made for such purposes; the appointment and general supervision of such special committees of investigation and research as may be provided for and authorized by the Board of Directors of the Association; the consideration, discussion, and recommendation to the Board of Directors for disposition of all reports by such special committees of research as may have been appointed on its recommendation or by its authority; the annual preparation and presentation to the Association at its annual convention of the report on "Educational Progress during the Past Year;" and in other ways shall use its best efforts to further the objects of the Association and to promote the cause of education in general.

This statement is certainly broad enough to leave the Council free to undertake any educational work which it has the time, the means, and the energy to carry out. As was said last year:

> The National Council of Education . . . . is in a peculiarly favorable situation as regards the gathering up and digesting of current educational opinion. By collating the judgments of the most successful teachers and school administrators it can render that most important service—the determination of widely approved standards of educational

practice. It can, moreover, exercise a great influence on the development of educational doctrine, out of which the standards of educational practice are to proceed, by bringing together into direct and suggestive comparison the best formulations of educational doctrine which can be had.

The National Council of Education is at present concentrating its work on investigations which have been conducted or may be undertaken. It is believed equally important to follow up, year after year, any good report which has been made in order that salient points may be thoroughly assimilated, and to keep on the alert for promising subjects for further investigation in order that those of greatest promise shall be selected for well and widely considered inquiry.

It cannot be too often nor too forcibly said that this association must not let its investigations be less accurate, less painstaking, or less comprehensive than those of our universities, the scientific departments of the government, or the Bureau of Education. We must leave to others things that can be better done by others. In the investigation of facts as in contrast with the investigation of administrative policy or of educational opinion the Council or the committee appointed by the Council would do well to select one expert to investigate and report on a given topic. We cannot hope to have the contributions of this council given the same standing among scholars as the better contributions from other sources unless we have at least one man on every committee of investigation who is a recognized scholar and expert in the line of the subject of investigation.

It has been suggested that the work of investigation by this council might be well supplemented by the appointment of one or more traveling fellows or scholars. It would seem unwise for this council in any way to undertake to duplicate work done by the universities. But it would be entirely in harmony with the purpose of this body if funds can be provided to give a scholarship or fellowship to an expert in some line in which the Council desires some subject investigated, provided such expert could make investigation at home or abroad as the representative of the National Education Association or this Council to study definite problems and make a definite report to the Council. Such a representative might secure good results and broaden the work of this body.

There are two minor and obvious suggestions that occur to one in reading the constitution of the Council. The preamble to this document says that the Council shall prepare through its president an annual report to the National Education Association setting forth the questions considered by the Council during the previous year, placing before the association in succinct form the work accomplished. This appears to be a dead letter. Should it not therefore be eliminated from the preamble of the constitution by due process of amendment or ordered that it shall hereafter be fulfilled? In the second place, Art. 3 says in part: "There shall be a regular annual meeting of the Council held at the same place as the meeting of the National Education

Association at least two days previous to the meeting." It has been impracticable in recent years for the Council to meet two days before the general session of the National Education Association on account of the unwillingness of the railroads to grant rates long enough before the general session of the National Education Association for members of the Council to receive the benefits of the rates and arrive at the place of meeting two days previous to the meeting of the general association. Should not the constitution be changed by eliminating the phrase, "and at least two days previous to the meeting," found in lines 2 and 3, sec. 3?

At the meeting in Asbury Park, in 1905, there were six sessions and at Los Angeles in 1907 there were four sessions of this body. This year five sessions have been planned. The program for these sessions may be arranged under three heads:

First, The Report on the Educational Progress during the past year, which is made a part of our program by the constitution of the Council and is this year presented at the opening session of the National Education Association this afternoon.

Second, Reports of committees appointed for special investigation and a general discussion of the same. The Council asked its president to appoint six committees to make special investigation. A committee was appointed to continue the investigation of industrial education in rural schools. This committee has ready a printed report to submit to this Council for consideration and discussion. Four other committees are ready to present preliminary reports. They are as follows: (1) Committee on a System of Teaching Morals in the Public Schools of the United States; (2) Committee on the Scarcity of Teachers; (3) Committee on Provision for Exceptional Children in Public Schools; (4) Committee on the Culture Element in Education. The committees on Shortage of Teachers and Provision for Exceptional Children have printed preliminary reports. The sixth committee, on Co-operation with Educational Organizations in Other Countries, is presenting, instead of a report, three suggestive questions within the field of the work of the committee, which are open for discussion. The field of work open to this committee is very broad and may take years of thought and labor before the entire scope of its work shall appear. The work of several of the committees will necessarily continue beyond the present year. How many and what ones will continue their work will be for the Council to determine.

Third, the remaining topics are selected from a list of about fifty questions kindly furnished by members of the Council. The questions were real ones and worthy of a place on the program, did time permit. Some of these topics have been used by the general session and others by departments. My obligation to the members of the Council for their assistance is gratefully acknowledged. All the members of the Council not on the program for a longer paper or discussion have been asked to speak three minutes on a topic of their own choosing. Of the fifty-eight members, forty-five are on the program of this meeting. Five have written that unavoidable circumstances will prevent their presence at this time. Others are present who preferred not to have their names on the program.

I wish to ask the Council to help devise some plan by which at least abstracts of the papers and reports presented to the Council will be in the hands of those asked to lead in the discussion at least thirty days before the meeting of the Council. It is impossible to have thoro and adequate discussion without an opportunity on the part of the speakers to digest the subject-matter presented. I must confess to have failed to secure the copies desired thirty days in advance. Though the request was made six months ago in most, cases, they were furnished not more than a week in advance. The feeling is widespread that the discussions are less valuable in recent years than formerly because those asked to discuss papers have no adequate opportunity to prepare themselves. I would suggest that no papers or reports be printed in the *Proceedings* after the present year unless at least three copies of the synopsis of the same are in the hands of the president of the Council at least thirty days before its annual meeting. If this should not be found effective then some more drastic action should be taken. The Council should take any action necessary to make the discussion a most vital and stimulating part of its work.

We are again saddened by the death of two of our friends and colleagues in this Council, Dr. F. Louis Soldan, superintendent of instruction, public schools, St. Louis, Mo., and Rufus H. Halsey, president of the State Normal School at Oshkosh, Wis. A suitable memorial for each of these will be presented. Each of these men has been an honor to the Council, to the profession of teaching, and to American education. Their faithful and fruitful service in the cause of public education should be a new inspiration and a new incentive to each of us to do what we can while it is yet day, for the night cometh when no man can work.

In closing I propose for consideration at the business meeting of the Council the following:

QUERIES

1. Shall the general plan of the program of this year be followed for next year? If not, with what modification?

2. Shall the Council recommend the establishment of one or more traveling fellowships? If so, under what conditions?

3. Does the Council favor an increase in membership? If so, to what number?

4. Should the Council take any action that will make more efficient its discussions?

5. Should the constitution of the Council be changed in either or both of the particulars suggested?

THE PROGRESS OF EDUCATION FOR THE YEAR

CHARLES F. THWING, PRESIDENT OF WESTERN RESERVE UNIVERSITY AND ADELBERT COLLEGE, CLEVELAND, O.

I wish to interpret the progress of education for the year now closing under six relations:

First, in relation to the subject to be educated, the people; second, the educating force; third, the educating content or material; fourth, the educating tools or instruments; fifth, the educational conditions; and sixth, in respect to personality.

First, in relation to the subject to be educated, the people. The year offers intimation of a continuance of the increasing appreciation on the part of the people of education. Several bases for the betterment of humanity are worthily used; the financial, which Lord Cromer's career in Egypt embodies; the social, which French civilization illustrates; the economic and the educational, which England embodies. The American people have consciously or unconsciously adopted the educational basis as a special means and method of betterment. The people are coming to see with increasing clearness that the religious basis is in peril of narrowness of interpretation and of application, that the social is in peril of superficiality, that the economic is in danger of becoming sensualistic without imagination, and the financial materialistic without spiritual vision. The educational basis, it is seen, is broad—as broad as humanity without superficiality; deep—as deep as thought without narrowness, moving and inspiring without visionariness. All this the people are coming to see, to feel, to appreciate. The formal clauses of the constitutions of the different states commending education are becoming an integral part of the unconscious thinking, feeling, and conduct of the whole body of the people.

This increasing appreciation is made evident by laws passed by the legislatures of the several states in these last months. Among such laws and among movements growing out of such laws may be noted the progress of the study of agriculture in rural high schools. States as remote as Pennsylvania and Kansas, Arkansas and New Jersey are leading in such a movement. Michigan has established a chair of agricultural education in its school at Lansing. The endeavor, too, to put libraries into every public-school building progresses. The movement is a general one, taking on diverse forms in different states and in different schools of the same state. Several commonwealths, also, have established commissions either to study educational conditions or to codify school laws. Illinois, Kansas, Kentucky, Washington, and Pennsylvania are acting in this important relation. As a part of such improvement also, several states are proposing to make the supervision of educational interest more expert. In this endeavor Vermont has a large place. The enforcement of compulsory laws regarding attendance is receiving attention. With this enforcement is joined a more rigid inspection of factories which employ children, to insure that those under legal age are not employed. Minnesota, Wisconsin, and Vermont especially represent this movement. Minimum salary acts still continue to be passed, as in Pennsylvania and West Virginia. The movement or the transfer of the basis of taxation from the local district to the larger area, as the township, the county, the state, continues to gain force. As a financial movement and also a human one, the endeavor for the establishment of pension funds progresses. Intimations are that every state, as a state, and every large city in it, will presently have pension funds in working order. Among the cities Harrisburg has in this last year made rapid progress and among the states the movements in Massachusetts should be noted.

In this time the Carnegie Foundation for the Advancement of Teaching has entered into the third year of its service. This organization has already established for itself under wise leadership a great place in the American higher education. It has based itself upon the assurance that grants made by it are not a largess, not a favor, but an attempt to give proper compensation to the college teacher. It has helped to make colleges less denominational without making them less Christian, as also it has helped to standardize conditions of admission and of graduation of the American college. That this Foundation has a great place is proved; that it will have a much greater one is also evident.

The movement for industrial and technical education continues with increasing emphasis and incentive. The world is becoming interpreted more and more as a material potency which it is the duty of men to develop. With the exception of the present small demand, caused by depressed industrial conditions, engineers of all types are in urgent demand. In America the call is akin to the call which is found in India and Egypt for irrigation engineers and in China for civil and for mining engineers. The demand for engineers of the highest intellectual type increases with greater force than for those of the clerical or imitative type. Engineers of the power of large thinking, of initiative, of general executive force are specially required. This increase in the demand and in the supply to meet the demand emerges in impressive contrast to the diminishing number of men entering schools of theology. This decline, however, seems to be characteristic of all nations.

Despite these principles, laws, and movements which represent the increasing force and volume of education, it cannot be denied that the number of pupils who persevere in following an educational course to its conclusion still remains small. A career of a class from the primary through the high school or the college is like the march of an army in retreat. It is distinguished by its losses.

The enhancement of the worth attributed to the higher education for women still continues. The desire of girls to go to college is quite as general as the desire of boys to become engineers. But the sentiment is rising—rather a feeling than a conviction—that the higher education of women should be differentiated from the education of men. Women have proved that they can do the work of men. They are now, having made their calling and election sure, asking this question: "Is it worth while to try to do the work of men?" The question is raised in some minds: "Should not the higher education of women still have for its primary intellectual interest and for its content studies which may specially relate to the calling to which at least one-half of the college graduates will devote themselves?" Such questioning, rather than questions, comes to move in the heart and mind of those who have especially to do with the higher education of girls.

Second, The educational force may be interpreted as administrative, personal, pedagogic, material. In administration the year emphasizes the continuance of the policy of centralization. In the higher education the enlarging place of the College Entrance Examination Board illustrates the general movement. In the middle education the progress made in abolishing the district system and establishing the town system, and also the progress made in uniting two or more townships for purpose of supervision, bears evidences of the same tendency. This tendency is also emphasized in the selection of the educational council, or board of education, of the individual city, from all citizens, and not on the basis of wards or mere districts.

The personal and pedagogic elements of the educational forces represent the teacher. The central place occupied by the teacher apart from tools and instruments was never so thoroly recognized and appreciated as this very day. The work of the teacher is coming to be received as a profession and as the profession of the utmost value to humanity. Its qualifications, as well as its beneficence, receive a higher valuation with each passing year. But tho the professional value of the teacher has been enhanced, it is also seen with increasing clearness that the worth of the personal character of the teacher is the primary worth of the schools.

But also with this recognition is emerging an intimation that the work of the faithful woman in the schoolroom is made too hard. To lessen its exhaustiveness without diminishing its efficiency is seen to be the eminent problem. It is not usually true that the work of the men who teach in school and college is too severe. The impression is growing that a larger number of men should be employed. The percentage of women teaching in American schools is the highest of any country. In America four-fifths of all teachers are women and one-fifth men; in Japan the proportions are reversed: one-fifth are women and four-fifths men.

Third, In respect to what I have called educational content certain tendencies in opinion are becoming more and more emphasized. The judgment is maintained that all truth has educational value; and that, therefore, the curriculum should be broad. The curriculum should be made to include whatever can minister to the increase of the power of thinking, or to the appreciation of life's beauty, or to the efficiency of life's service. The curriculum should embrace all those studies which are of the highest worth. It may also include those which are of other worth than the highest. The efficiency which is sought for is the efficiency to earn a living. That is primary. But also the efficiency which is sought for is the efficiency which can make a life. Mechanical high schools are increasing and industrial training is receiving greater emphasis. Whether mechanical high schools should be a part of the ordinary high school or created on distinct foundations and under separate faculties is a subject under general discussion and under special discussion in Massachusetts. But that the efficiency of the so-called manual training is dependent more upon the brain than upon the hand is becoming recognized. With this emphasis runs a disposition to cut out what is called "fads and frills," though, be it said, these eccentricities are far less numerous than those who inveigh against them seem to believe.

Among the teachers of the two classical languages of antiquity taught in the high schools and the colleges, is growing the feeling that both, if either, should be taught, and neither if not both. Latin without Greek came to have a place of its own thirty years ago in American schools and colleges. The enlargement of the physical and natural sciences caused a decline of interest taken in Greek. Greek seemed more remote than Latin and it especially suffered in the competition for a place in the curriculum. But recently scholars have come to recognize the intimate relationship of the two. Latin literature finds its springs and origins in the Greek. A student seldom studies Greek without knowing Latin. He does study Latin without knowing Greek. It is declared that such a study gives a false knowledge of the proportional values of the life and literature of the Greek and Roman people. Therefore while the classical teachers do not lessen their claims of the worth of the type of education they represent, they are inclined to eliminate it if it cannot be offered in justice and proportion. They, of course, are perceiving that the continued teaching of modern languages is rendering these languages more adequate tools of modern training than they were when introduced into the course of study.

Fourth, The educational content has close relationship to what may be called educational tools or instruments. Such implements are of primary service in education. The improvement of education is well measured by the improvement in educational tools. Among these implements the textbook has the first place. The improvement in textbooks still continues. The modern textbook differs from the early one in respect to the method of presentation of the subject. The earlier one sought to explain and to interpret the subject in a logical order. The author's point of view was scholastic. The textbook was the expression and exposition of truth and of truths. The recent textbook seeks to explain and to interpret the subject primarily for the benefit of the mind of the student. The point of view of the author is the point of view of the pupil. This point of view has for its chief characteristic simplicity. It represents the discarding of the irrelevant. It also stands for the sense of porportion in making principal principal and subordinate subordinate. Its fundamental element of the student's point of view continues to be emphasized in textbooks of the current year's publication.

Akin to the textbook should be noted the educational journals and reviews. These publications show a constant improvement. This improvement is made despite the condition under which they labor, conditions arising from the fact that the daily journals, weekly papers, monthly and quarterly reviews regard education as one of the great human interests which they should and which they do consider. The opportunity seems ripe, it may be added, for still further enrichment of periodical literature. The conditions are hard, but the ideal is one which we can worthily set before ourselves.

In relation to educational tools, it is to be added that the community with each passing year appreciates at a higher value the service wrought by good architecture, both as a means of improving material conditions, as a way of promoting the health and securing lives of pupils, and also as a method of ministering to the sense of the beautiful. The need of security for the personal safety of teachers and students has been emphasized by the burning of a school house in the neighborhood of this city in the month of March. The harrowing death of one hundred and sixty-four pupils and teachers gave a shock to the whole civilized world. It also prompted the educational authorities in both America and Europe to look well to the risks to which every student and teacher is subjected.

Fifth, Educational conditions represent elements as important as educational forces or tools. Among these conditions athletics are still occupying a chief place. This occupancy relates to every grade of education except possibly the kindergarten. It is still a reflex of the interest of the whole community in athletic concerns. The community is coming to realize that to seek to support athletics in school or college is to seek to support certain of the great human and lasting interests of man. The college and school are seeking to regulate these sports. Teachers are playing more with their boys, or if not playing with them, at least are coming to sympathize more with them in their play. Many students, too, in some colleges and schools are seeking with wiser wisdom and with more genuine sympathy to give to sports a proper place in their educational career. The keen excitement regarding fraternities in the high schools has in many instances subsided. Those organizations are in some schools allowed to exist; in a few they are forbidden. But taking all of the ten thousand high schools of the United States together these organizations are relatively few.

What I have said of educational policies and conditions in North America is also true of policies and conditions on American territory over the seas. Governor-general Smith, of the Philippines, concluding a long conversation upon the worthiness and efficiency of the Americans who have come to the islands, said, "But after all the best of them all is the American teacher." The American teachers, both men and women, are doing more for the permanent elevation and improvement of the Filipinos than all other forces and personalities. These teachers are of good origin. They are the children of the great body of American homes. Many of them are graduates of the colleges of the Middle West and of the Pacific Coast. They are possessed of high ideals. They have an instinct for efficiency. They are willing to endure hardships as good soldiers. They unite intellectual insight and comprehension with the moral virtues. They are forceful without officiousness, and, while conscious of their power, and watchful for opportunity, are yet not arrogant. Eight hundred men and women of this noble type have for seven and more years been working as teachers in the Philippines, are still working, and are to continue.

Sixth, Behind the whole educational system stand great personalities. The American system has been rich in this supreme wealth. The year has taken away not a few such men. Foremost among them is Thomas Day Seymour, for almost a generation professor in Greek in Yale. Of him it may be said, as he said of one of his colleagues in the college of which he was a graduate and where he taught before going to Yale, "a Christian gentleman and scholar, honored for his character as much as for his scholarly attainments." A younger colleague, Edward Gaylord Bourne, has also, after a lingering illness, ended his career. In his death the cause of American history loses an investigator of great frankness and candor, a writer of wide and increasing recognition, and a teacher of inspiration, especially for minds like his own, eager and inquisitive. Harvard and the cause of classical scholarship suffered a great loss, also, in the sudden death of Minton Warren, and Columbia and the cause of science mourns the untimely end of Underwood. St. Louis and the nation mourn Soldan—an inspiring soul, a chevalier, and standing for a noble type of the executive. The whole northwest, and especially the state of Washington, mourns the death of Bryan, the first state superintendent of schools. It may also be added that American education lost a wise supporter and American teachers a genial friend in the death of D. Collamore Heath, publisher of good books, a man noble in purpose, wise, prudent, and strong in every undertaking.

Changes other than mortal have also occurred. Hopkins has retired from the headship of the New England College after giving six years of service not unworthy of the fame of his great father. Following upon his resignation, Harry A. Garfield was chosen president. The office was offered and accepted a year in advance of undertaking the same. This method is to be commended. For the work of the teacher is a vital process, and changes in vital processes suffer less by reason of being made deliberately. In this year, too, Dean Laura Drake Gill has retired from the deanship of Barnard College after a service of seven years. The office of dean of a woman's college is one of the most difficult, as it is one of the most important, in the whole educational hierachy. Miss Gill brought to the deanship of Barnard a high appreciation of the wealth of helpfulness which it offers to the student and to the community. In another college of Columbia, Dean Russell has completed ten years of service. Teachers College could have existed without Dean Russell, but if he had not served it in this decade, it would have been a very different college. He has excelled in two of the most delicate and difficult problems belonging to the college executive: In the selection of teachers and also in the endeavor to persuade and to quicken a body of trustees to the realization of the great duties resting upon them and of the rich opportunities open to them.

As one compares the history of the year with the history of education in other great nations, American education represents the annals of a nation at peace. England has been in a state of serious excitement, in church, both established and unestablished, in Parliament and without, regarding public and ecclesiastical education. The excitement still continues. No satisfactory solution has been reached. Curzon has tried and, even with his great power, so far failed, to raise two hundred and fifty thousand pounds for Oxford. In the British Empire of India, advancement has been made in dealing with ignorance, in a community, complex and ancient, where only 5 per cent.

can read. Egypt has established technical and trade schools. Turkey still lingers in educational darkness. China's revival has been hurt because of the lack of a proper number of teachers and also by a great doubt of the sincerity of the Chinese government in promoting education. Japan still continues to educate and to educate with that efficiency which she puts into her military and naval service. America has, with her companion nations, sought to labor on in this supreme cause, keeping the river of her education full of the water of life, determined that to each child shall be given fitting educational opportunity for making his work efficient, and his character large, rich, and fine.

REPORT OF COMMITTEE OF INVESTIGATIONS ON THE SCARCITY OF TEACHERS

LETTER OF TRANSMITTAL

To the President and Members of the Council of Education, National Education Association:

FELLOW-MEMBERS: Herewith is submitted the report of the Committee on Scarcity of Teachers, by President David Felmley, the secretary of the committee, who sent out a series of questions agreed upon by the committee at a meeting held at the Teachers College, Columbia University, New York City, January 2 and 3, 1908. At a subsequent meeting of the committee, held in Washington in February, it was decided to ask President Felmley, who had previously made an intensive study of some phases of this subject, to compile the statistics and draft the report.

The report is based upon a systematic *questionnaire* which brought replies from four hundred eighty-three correspondents who represent every state and territory except Delaware. The material used came from state superintendents, county superintendents, city superintendents, presidents of normal schools, professors of education in colleges and universities, editors of school journals, and managers of teachers' agencies. These people, because of their large experience and careful reflection upon the subjects regarding which they gave facts or expressed views, represent, in our opinion, a safe intelligence on the matters herein considered.

This investigation brings together the facts of wide experience and a consensus of opinion of people whose business puts them into active contact with the vital elements considered. It, therefore, appears that the conclusions reached rest upon rational knowledge which must always seek the causal relation of things.

Supported by evidence that seems to sustain the construction placed upon it, your Committee submits this Report, not as the final word but as the basis for further study should the National Education Association desire to secure greater detail of information and attempt to develop a new phase of sociology in accordance with the methods of exclusive and technical science.

Respectfully submitted,

I. C. MCNEILL, *Chairman*
DAVID FELMLEY
JAMES M. GREEN
CHARLES H. KEYES
JAMES E. RUSSELL
Committee

REPORT OF THE COMMITTEE ON THE SCARCITY OF TEACHERS

Your committee appointed to investigate the scarcity of teachers mailed nearly one thousand copies of a series of questions touching the extent of the shortage among different classes of teachers, the probable contributing causes, and the availability of certain suggested remedies. Full replies were received from 483 correspondents, representing every state and territory except Delaware. . The replies came from state superintendents of public instruction, from county and city superintendents, from presidents of normal schools and professors of education in colleges and universities, from editors of school journals and managers of teachers' agencies—nearly all testifying to the prevailing scarcity of qualified teachers. Indeed, Southern California, Colorado, and New Mexico are the only regions where any sort of a surplus exists. Only fifty replies reported no shortage in the immediate locality of the writer. In one state three hundred schools had not opened a month after the date of opening because no teachers were available. In another the plan had been largely adopted of having a teacher serve two schools six months in each. On January 1 four hundred additional teachers were needed in the city of New York, and fully half that number in Chicago. In fact in many states thruout the Union, schoolhouses still stood empty late in the fall because of the dearth of teachers. Everywhere there is complaint of the poorer quality of the teachers available especially for rural schools. In all the states these are largely taught by mere boys and girls lacking in scholarship, in professional training, and especially in self-control. As a consequence they embroil themselves with pupils and parents and wreck their schools for want of discipline.

County superintendents and examining boards have been obliged to lower their standard of requirements for admission to the profession, to reject fewer applicants for certificates. The upper classes in the state normal schools are depleted by the constant calls for teachers. They have not been able to meet one-fourth of the demands made upon them during the school year. Fewer students enter the state normal schools, except in those states where normal training secures a life certificate. Why need they? The schools must be provided with teachers. All who can pass muster with the certificating official are reasonably sure of employment, while he in turn must level his requirements to the ability of the available candidates.

An examination of the roll in any particular county will show that many of the best teachers are leaving the work: the men to farm, to study law or medicine, to become insurance agents and traveling salesmen, or to enter the government service; the women to become trained nurses, secretaries, stenographers, responsible bookkeepers, and saleswomen. There has always been this outflow from the profession, but just now it is greater than before;

and now to an alarming degree it is the best teachers that are leaving. Out of forty-six Illinois county superintendents who have written on this point thirty-seven state that it is distinctly the most forceful and promising that we are losing. All must agree that in view of the needs and responsibilities of modern education, too few are looking seriously to a career in this profession and making adequate preparation for it.

Nor is the scarcity confined to any particular class or kind of teachers. While plenty of persons can be found ready to accept the better-paid positions, the number of teachers able to meet the standard of qualifications set by employers is in few states equal to the demand. This fact was best illustrated in the replies to the question, Is there a shortage of competent teachers for normal schools? City and county superintendents generally answered no. But normal school presidents, the men charged with the selection of such teachers, with two exceptions answered yes.

The dearth of teachers is naturally most pronounced in the ungraded rural schools. These schools thruout the country are usually taught by women. In many cases good boarding-places cannot be had. The teacher frequently must discharge the duties of a janitor. The isolation of country life is so distasteful, that most rural teachers seem willing to accept a larger school at lower salary in town or village. Consequently the least desirable rural schools are the last to be taken. Of the school officers replying to our questions on this point, 92 per cent. report a shortage of rural teachers; 60 per cent. of the replies state that the scarcity is not limited to fairly competent candidates, that it is hard to find any sort of person to undertake some of their rural schools.

In graded schools it is a question of the competency of candidates. Many wealthy suburban communities, proud of their schools, put their superintendents on the road with instructions to get good teachers at any cost. So long as public education is regarded largely as a local or neighborhood affair rather than a duty that the state owes alike to all its children, this practice will prevail and the favored communities experience no shortage of qualified teachers.

City superintendents who maintain a city training-school, or whose cities are the location of state normal schools or other institutions for the preparation of teachers, usually report a good supply of qualified teachers. Along with the two classes of communities just described, and the localities favored by an attractive climate or other special advantages of residence, we must place the booming cities of the newer states where good schools are an asset of the promoter or the real estate dealer. Yet in spite of these special conditions that affect certain cities we find that 72 per cent. of the city superintendents reporting from the North Atlantic states, 84 per cent. from the South, 82 per cent. from the Middle West and 48 per cent. from the Mountain and Pacific states declare that they find it difficult to secure well-qualified teachers for their graded schools. The difficulty is not confined to candidates properly prepared in drawing, singing, nature-study, handwork, or physical training, branches recently introduced into the curriculum of progressive schools. It is not easy to find persons of personal power and disciplinary ability with sufficient knowledge and professional training to teach well the traditional branches of the elementary-school curriculum according to the standards of present-day school boards. This condition prevails in all sections tho with less intensity in the East and in the Newer West. Of the replies received 36 per cent. report that the scarcity of competent teachers obtains in all grades alike; 21 per cent., that it is most pronounced in the upper grammar grades; 11 per cent., in the primary grades; while 3 per cent. of the superintendents report that it is most difficult to find teachers equal to the problems of the formative period in the fourth and fifth school years.

Secondary schools experience less difficulty in finding satisfactory teachers. The higher salaries paid, the greater social distinction enjoyed, the shorter hours, the narrower field of study, the lessened responsibilities of the high-school teacher all tend to attract young women to this field. Only 13 per cent. of the replies from the East, 27 per cent. from the South, 20 per cent. from the Middle West, and 17 per cent. from the Pacific states indicate any notable shortage of women teachers qualified for high-school positions. More than half of them in all sections report a scarcity of men. Men to teach science and manual training are hardest to get, probably because lucrative openings in engineering, manufacturing, and medicine constantly invite such men. Next to these stand good teachers of English. Plenty of people professing to teach English can be found, but the subject is still so poorly organized in our high-school programs that success is only for the exceptional teacher. Satisfactory teachers of the commercial branches are not plentiful because the quality of the students electing these branches demands the highest personal power in the instructor to incite them to vigorous effort. Teachers of mathematics, modern language, history, and Latin are usually abundant. Only in the South is there reported a scarcity of Latin teachers.

A marked scarcity of well-equipped principals is reported from the South; in other sections only of competent men principals. The low salaries paid have resulted in a survival of the unfit in this sex.

About one-third of the reports from the East and Newer West and fully two-thirds of the replies from the South and Middle West indicate a dearth of competent instructors in drawing, singing, manual training, domestic science, and physical training. The teachers' agencies are usually well stocked with candidates in all these lines; but many of them are people who have turned to teaching as an afterthought. They are frequently poorly educated outside of their special lines, and quite unskilled in teaching classes of children.

CAUSES

Why are teachers scarce? The economic law is that labor drifts from one occupation to another according to the relative inducements offered in each. At all times teachers have been drawn to their vocation by a variety of considerations. The social position and public respect accorded to worthy teachers is no mean inducement. People who love knowledge for its own sake, not merely for the uses to which it can be put, usually find delight in sharing their treasures with others. Many, too, are attracted to the schoolroom by a genuine love of children. To most of them, I take it, teaching is more than an occupation; it is a veritable calling; there has been something of a spiritual summons, an ideal of bettering the world thru the administration of the school, an ideal whose urgency has brought them to the teacher's desk. Along with these inducements has been the salary, which has been valued nearly as much for the evidence of public respect accorded as for the material comforts that it commands.

Now as compared with other occupations it seems that the moral or spiritual inducements to become a teacher are as potent as ever. But the question of salary is becoming in every sphere of activity a larger consideration than it has been in the past.

The cause is fundamentally in the industrial changes that have removed the domestic industries from home and farm to factory and shop. Our pioneer forefathers produced with their own hands nearly everything in or about their homes. They saw little of the wares of the merchant. Their luxuries and personal adornments were largely the product of their own taste and skill. Now the world buys and sells relatively five times as much as a century ago. We serve others and are served by them. The measure of comforts that we shall enjoy depends very largely upon our command of the market. The standard of living is determined by these changed conditions. In spite of all the moralists may say in praise of the simple life, teachers know that to retain a due measure of respect in the eyes of the public if not in their own, they must in dress, and in style of living, pay some regard to the prevailing standards. The teacher, therefore, is not to be upbraided because he sometimes turns from his work to consider the question of pay. It is true that whether his salary be great or small he owes all that he can give to the children under his care; but when the day for signing a contract has arrived it is his privilege to make the best possible bargain.

Salaries of teachers have risen in all sections of the country during the past ten years but not uniformly. In states side by side under the same economic conditions the increase has differed widely because of legislation that has directly affected salaries, the supply of teachers, or revenues available for the schools. Measured by percentages of former salaries the gain has been least in New England, rural Illinois, Kentucky, Missouri, and California. Yet the last-named state is today paying the highest salaries in the country. The increase in the decade the country over has averaged nearly 25 per cent., being lowest, as a rule, in the rural districts least affected by the recent industrial prosperity.

In our wealthy urban communities women teachers are comparatively well paid. In fact, only exceptional women can earn a better living in other pursuits. The high standard of qualifications demanded, the security of tenure, the social position accorded teachers, alike because of the value of their work and the high character of the personnel of the teaching profession, no less than the salary, make the work attractive to superior women. But there are hundreds of smaller cities in which these conditions do not exist, and in which low standards of qualifications and political influence in the appointments combine to keep salaries low, and the calling in little esteem. Of rural teachers there are thousands in the South, in New England, even among the prosperous farmers of the Middle West, whose pay is less than thirty dollars per month, often for a school year of six months or less. It is not strange that men everywhere are abandoning the rural schools and even the positions in the towns and villages paying less than $800 per year. If they wish to build a home and rear a family the outlook is far better in the skilled trades, not to mention the professions and responsible positions in the commercial world.

From an official of the National Federation of Labor I have the following table of wages of skilled labor for the past five years thruout the Middle West, except in the largest cities, all enforced by the union scale.

	Actual earnings about	With full time could earn
Brick layers	$750.00	$1,200.00
Plasterers	600.00	900.00
Carpenters	600.00	900.00
Plumbers	750.00	1,000.00
Painters	500.00	750.00
Journeymen tailors	600.00	900.00
Coal miners	700.00	1,000.00
Locomotive engineers	1,200.00	1,800.00
Firemen	800.00	1,000.00
Brakemen	700.00	900.00
Machinists	800.00	900.00

In all these lines of skilled labor there has been a notable advance in wages during the past ten years. Coal miners' wages have practically doubled.

It is not necessary to multiply evidence on this point. It is a matter of common knowledge that the country schoolmaster is fortunate whose net earnings are better than those of a good farmhand. Many good women teachers earn less than stenographers, factory-girls, seamstresses, and cooks. In the Northwest the land booms, the reservations thrown open to settlement, in all sections the inviting business opportunities, the sudden fortunes made by lucky investors, have sowed the seeds of unrest among teachers.

In few cases has the advance of wages in the past twenty years kept pace with the increase in the cost of living. Moreover, the demands upon teachers have multiplied. Institutes, books, periodicals, and summer schools have brought home to them the need of professional preparation. When this need is realized the conscientious teacher feels that he must obtain the preparation or quit the ranks. The demand for such preparation is often stronger among teachers than among employers. Promising teachers frequently leave the ranks because they keenly feel the need but cannot see in present salaries justification for making the necessary expenditure.

The inadequate compensation is not because our people do not believe in education. They intend to spend most generously for its support. During the past thirty years the per capita cost of public education has almost doubled, but the enlarged expenditures have been for fine buildings, for equipment, apparatus, libraries, and especially for developing our somewhat expensive high-school system which has increased its enrolment twenty-fold. A fine school building especially appeals to the American spirit. It is the pride of the town to be exhibited to the prospective investor. It is regarded as a wise investment for advertising purposes. But teachers' wages are largely determined by custom. No organization or trades-union methods have been operative to force them up. Competition has been unrestricted. With unrestricted competition wages are bound to sink to the lowest level at which workers will consent to live. This level is reached in that large class of young women, fresh graduates of the public school, who while living with their parents are willing to accept any small salary sufficient for their personal expenses. Wherever school boards are willing to employ teachers with this standard of preparation, self-supporting men and women must seek a field where intelligence, skill, energy, and fidelity bring a decent reward.

While the inadequate salary, as compared with other employments requiring equal preparation, ability, and responsibility, is undoubtedly the chief cause of the scarcity of teachers, there are various other factors.

In nearly all the states the examinations for teachers' licenses have increased in extent and rigor as compared with twenty years ago. To the seven common branches which were the universal requirement of a former generation have been added, in various states, physiology and the laws of health, the history of the state, pedagogy, civil government, physics, zoölogy, botany, the elements of agriculture, vocal music, and drawing. In a few states loosely administered county examinations have been replaced by state examinations, which, without adding to the nominal requirements, have been so impartially enforced as to eliminate many of the weaker teachers and to discourage others from undertaking the work.

The higher standard of qualifications demanded by employers in progressive communities has been a still more influential cause. In fact the raising of this standard without a corresponding rise in salaries is the root of the present situation. School boards and superintendents have steadily increased their demands for professional preparation.

Reading circles, teachers' meetings, institutes, summer schools—all devour the teacher's leisure, and her purse. It is not claimed that these demands should be abated. These means of professional growth add zest and even joy to her work that otherwise might sink into drudgery. But this demand for growing teachers proceeds from school boards rather than from taxpayers.

The insecure tenure of position has been a large factor in driving men out of the profession. With women teachers in our larger cities the tenure is probably too secure, for the good of the children. But men usually desire to marry and own a home. A physician or lawyer may settle in a town and continue even if he now and then offend a client. So long as a portion of the community believe in him, he can make a living, but if a teacher, especially if the responsible head of the schools, offends a few of his patrons, he must sell out and move. The expense of securing a new position, the uncertainty and suspense wear out the most buoyant and hopeful of men. Men of narrow horizon sometimes get on school boards. They do not look far into the consequences of their deeds. They do not see the effect upon the quality of teaching that must result from a policy that drives self-respecting men out of the profession. Until public sentiment demands more consideration for the teacher as a man and a citizen the best talent will desert the schoolroom.

In the country schools the conditions are even worse. According to the reports received, Vermont, Pennsylvania, and Indiana are the only states in which most rural teachers remain a second year in the same school. The peculiar organization of the Indiana schools in part accounts for this. In all the other states about 80 per cent. of the rural schools open each fall with a new teacher. The practice dates from the day of the itinerant teacher who sojourned for a term among his patrons, and is today more prevalent in the localities that are nearest pioneer conditions. The untrained and untried teacher now begins in some weak district where wages are low and moves along the scale of better-paying districts until she lands in the "home school" or in the neighboring city. Without continuous interest in the children and the community which she serves no teacher can do her best work or develop her best qualities. She may be a teacher of subjects but not a teacher of children. In the country all sorts of experimental work in agriculture must bridge across the summer vacation. School libraries are bought and cared for, school museums filled, schoolrooms decorated with pictures and casts where teachers remain year after year. Furthermore the prevailing practice originated in the days when teaching was regarded as a makeshift or a stepping-stone, rarely as a serious or permanent occupation. The continuance of the practice keeps alive the old opinion of the worth of the teachers' work.

Another factor in the growing scarcity of men teachers is the feminization of the schools. Boys reared in a city rarely look to teaching. They think it women's work. The few young men who plan to teach are country bred, taught by men teachers from whom they caught their inspiration. The truth is that the American people have starved their schools, have sneered at and belittled the pedagog and professor until even university presidents find it exceedingly difficult to secure young men of personality and scholarship to fill college positions. If the masculine influence is wanted in the schools, and few question the need of it in the upper grades and high school, a more liberal scale of salaries must be provided for men than is necessary to secure competent women.

On the other hand in many schools the work has grown until it has become too great a burden for women; they are denied reasonable opportunity for social life. Women ought not to be worn out in the work nor find their matrimonial prospects impaired. Stenography and clerkships throw one with adults. The teacher's day is spent with children, her evening too often in correcting and grading written work.

REMEDIES

The remedies for the present situation have been in part suggested in the statement of the causes of the scarcity of teachers. They are all answers to this question, How can teaching be made more attractive to young men and women of character and ability? To begin with, salaries must be made adequate.

What wages should teachers receive? What wages should be paid for any service? The answer is, society should provide for all its servants charged with any vital function the conditions and means essential to effective service. Teachers should be free to teach. The citizen teacher of the early days could teach in winter and farm in summer. Few teachers are content with the standard of excellence then possible. Excellence in the calling now involves professional training, books and magazines, summer schools and institutes, travel, lectures, and concerts. A vacation outing is no extravagance if it buys vigor and inspiration for the schoolroom. The teacher's salary should be sufficient to reimburse him for his outlay for professional training, to maintain his professional growth, to enable him to live in the part of the town and dress in the style that the community demands, to bring up and educate his family and lay by something for old age.

In brief, his salary should provide as good living as other men of equal character, ability, training, and skill receive.

In the Indiana report on Taxation and Teacher's Salaries these recommendations are made:

For the rural schools, $420 to $600 per year.
For grade teachers in towns and villages, $480 to $650.
For grade teachers in smaller cities, $600 to $800.
For grade teachers in larger cities, $750 to $1,000.
For ward principals and high-school teachers in smaller cities, $900 to $1,000.

The salaries of high-school principals should be about 50 per cent. greater. County superintendents should be put on a par with the other county officers. The city superintendents should be paid as well as the postmaster. In New York and Chicago and a few wealthy suburbs, the superintendent is better paid than that official. But in 90 per cent. of the cities paying their superintendents $1,000 or more the postmaster's salary averages one-third larger. His responsibilities are surely no greater. The required standard of character, ability, knowledge, and culture no higher.

Such improvement of salaries cannot come without vigorous effort. There must be developed a public sentiment that will recognize the difficulties and worth of the teacher's work. We need an educational revival, a campaign of education in behalf of education. Most of our educational discussion is short circuited; it does not reach the people who decide things. We must get hold of the leaders of public opinion and thru them our legislators, for in social reform legislation must often direct and determine public opinion.

The most feasible solution of the salary question is a minimum salary law. Seven states have recently enacted such laws. Pennsylvania and Ohio make the minimum salary $40 for at least seven months; North Carolina, $35; Maryland makes it $300 for the year. West Virginia provides minimum monthly salaries of $40, $35, $28, respectively for the three grades of teachers' licenses. South Dakota provides a minimum of $45. The Indiana law enacted in 1903 provided that in case of beginning teachers the daily wages shall not be less than 2¼ cents multiplied by the scholarship grade on his license. After the first term of teaching the multiplicand is increased to 2½ cents; after three years 2¾ cents. The multiplier is increased for attendance upon the annual institute and for professional ability or schoolroom success.

The examinations for teachers' licenses are uniform thruout the state; 85 per cent. is the minimum grade upon which a license can be issued. Under the provision of this law, the poorest teacher in Indiana cannot be paid so little as $40 per month. In five years the law has effected an average rise in teachers' wages of 36 per cent. The increase has been all along the line, but greatest in the salaries of women teachers in rural schools, who now receive in Indiana an average monthly salary of $49.77, while in 47 counties in Illinois the average monthly salary of all women teachers is less than $40 per month of twenty-one days teaching.

By a recent enactment to go into effect next year, salaries in Indiana are still further increased by raising the multiplicands to 2½ cents, 3 cents, and 3½ cents. A high-school education is made the minimum of academic qualifications, while teachers of all grades must complete a course of professional preparation in some professional school. A special appropriation is made from the state's treasury for townships or districts which, while levying the maximum, are unable to pay the minimum salary for the required number of months.

There can be, we think, no valid objection to such legislation. Teachers are public employees. The salaries and fees of many public officers in minor political divisions are prescribed by statute. In most of the states the legislature has made only general provision for schools, leaving to the discretion of the various districts the amount of money to be raised, the salaries paid, the length of the term, the branches to be taught, and the selection of the teacher. In experience it has been found that the intelligence and spirit of some communities are not sufficient adequately to execute the educational purpose of the state. The legislature has been obliged to play the schoolmaster by requiring a certain length of school year and prescribing the qualifications of teachers. A minimum salary law is only another step in the same direction. It recognizes that the education of the children of the state is the concern of the entire state, and not merely of families and neighborhoods. It brings the intelligence and the authority of the commonwealth to the support and assistance of localities where educational sentiment is weak.

The fear is sometimes expressed that the passage of such a law tends to create the sentiment that the prescribed minimum salary is sufficient. I have yet to learn of any such law's working that way. I have received letters from state superintendents of the states mentioned that declare that no such tendency has appeared. The wealthy districts have increased their salaries proportionately.

Of the replies received 85 per cent. favor a minimum salary law, 9 per cent. are opposed, 6 per cent. in doubt.

On the question of pensions for veteran teachers there is a pronounced divergence of opinion—only 58 per cent. favoring pensions. On the one hand, it is urged that most teachers are poor investors; that they are the prey of the promoters; that the small amount annually withheld from their salaries will be more productive if left in the hands of the business world; that the practice is growing among large private employers, and, above all, that a pension system enables us in a kind and graceful way to relieve teachers who have outlived their usefulness. On the other hand, it is argued that the teacher ought to receive his full salary at the time he earns it; that many teachers leave the work before they are entitled to a pension; that teachers ought not to be relieved of necessary forethought in providing for old age; that a pension system in effect is an inducement only to the weak, improvident, and indolent, that both civil and military pensions weaken and demoralize. The results of an inquiry among young teachers and normal-school students support the contention that a pension system would not attract many young people to the profession.

After an initial probationary period teachers should be appointed for a term lasting thru good behavior. Removal from position during such term should be thru public hearing after formal presentation of charges. In this branch of the public service there should be as secure tenure as is afforded to United States judges or to letter carriers. Teachers should have just as much freedom of political action as is accorded to other men in public service without endangering their employment.

The scarcity of good teachers will not disappear until there are extensive changes in the organization and administration of our schools. There must be fewer school boards. Only men of the highest character and intelligence should be eligible. Those who license teachers should be readily recognized as men of superior educational ability and scholarship. There should be fewer examinations of teachers. After one fair and thoro test of scholarship, the teacher in continuous service should be subjected to no other. Graduates of professional schools of recognized standing should receive license without further examination. Teachers should be given larger freedom in their choice of methods for accomplishing the results required. Their pay should run for the entire year with such arrangements for vacation activities as may be agreed upon.

The rural schools should be organized in large units, either township or county. The revenue system should furnish a large state school fund, thus equalizing the burdens of the public education and at the same time give large opportunity for local pride and local initiative to provide superior schools thru local taxation. Districts should be made large enough to secure a school of respectable size. The rural teachers should be provided with a suitable boarding-place, with a private heated room, convenient to her school. Prosperous farmers want good schools but are not willing to be bothered with the boarding of the teacher. With the coming consolidated school will come the teacher's dwelling-house hard by the school house; his kitchen garden, flower garden, and little farm, the experimental garden of the school.

But while the fundamental remedy is to be found in improved salaries, boarding-places, and other material conditions of the teacher's life, it must be remembered that men and women do not work primarily for the satisfaction of material wants, but of social needs. Esteem, homage, admiration—these are the great satisfactions. If teaching becomes everywhere an honored calling it will attract and hold choice young people. The advent of this day of universal honor depends in part upon new legislation that may remove some barriers, in changes of organization that will give freer play to social forces, but it depends chiefly upon the quality of the teachers themselves, their scholarship, their professional skill, their spirit, their devotion, and their common sense.

DISCUSSION

Ella Flagg Young, Chicago, Ill.—The report is disappointing. The data have not been carefully analyzed and interpreted. The report conveys the impression that the committee had an explanation for which data had been found, ready at hand.

The statement that Chicago had a shortage of 200 teachers, January 1, 1908, is misleading. Stated in that bald manner, the condition seems to be one in which 200 vacancies could not be filled. There were not vacancies—about 100 teachers were on the list waiting for appointment as vacancies might occur. There were, probably, many teachers absent from one to ten days because of an epidemic of colds.

The greatest scarcity of teachers is in the rural school, and this, the report explains, is caused by the movement of women teachers toward the social life of the city or town. Later, a tear is dropped over those unhappy women teachers in the upper grammar grades and high schools in the cities, because the duties of the advanced grades deprive the women of their leisure in the evening, a time when they should be free to look after their matrimonial affairs! Does courtship take any more of the woman's time than of the man's—one cannot court alone. Think of this Council spending its time on such a report as an investigation of the cause of the scarcity of teachers. This is an attempt to show how to make conditions that will reduce the number of teachers.

Concerning the method of gathering data, I should like to call attention to the fact that the day has passed when social questions are studied in one group only. The committee would do well next year to adopt the method of the social settlement and the university to investigate both groups concerned; to make inquiries of not only presidents and superintendents but also of the young men and women who would be valuable additions to the teaching force, and to learn from them the reasons why they are entering upon occupations removed from study and work with mind. The committee could learn at least two things that have escaped it in preparing this report: First, the organization of our school system needs overhauling in the interest of the individuality of the teacher. The excessive supervision and requirements of principal, district superintendent, supervisor of drawing, supervisor of music, supervisor of gymnastics, and the criticisms and suggestions of parents and school trustees are all too prominent to make the life of the teacher attractive—contrariwise, they make it petty. No business house is organized so that an employee may pass under the criticisms of suggestions, even the kindly, of five or six superior officers, and fifty non-commissioned officers; Second, There is slowly, but surely, a desirable part of America's daughters turning to other vocations than that of public-school teaching. It is not her sons alone that are failing to respond to her call.

Finally, I wish to say that it is impossible for me to believe the committee is right in the stigma it casts upon the quality of men now engaged in teaching. This foolish attempt of the committee to stir up sex warfare is to be deprecated. Let us work from the standpoint of co-operation, not depreciation, one of another.

PRELIMINARY REPORT OF THE COMMITTEE ON PROVISION FOR EXCEPTIONAL CHILDREN IN THE PUBLIC SCHOOLS

INTRODUCTORY STATEMENT

At the Los Angeles meeting of the National Council in 1907 it was ordered that a committee be appointed by the President of the Council to consider and make a preliminary report on provision for exceptional children in the public schools, and that the sum of five hundred dollars ($500), or so much thereof as may be necessary, be appropriated to defray the expenses of this committee. The President of the Council appointed as such committee:

JAMES H. VAN SICKLE, superintendent of city schools, Baltimore, Md., *Chairman.*
ANDREW W. EDSON, associate superintendent of city schools, New York.
FRANK A. FITZPATRICK, Boston, Mass.
CARROLL G. PEARSE, superintendent of city schools, Milwaukee, Wis.
LLOYD E. WOLFE, superintendent of schools, San Antonio, Tex.

The committee has held three meetings: one in New York City on January 13–14; one in Washington, D. C., February 25; and one in Cleveland, Ohio, May 11–12. While in New York the members visited types of all classes for exceptional children maintained at public expense in that city and matured plans for further study of the problem through correspondence, personal visits to special schools, and conferences with experts upon various phases of the investigation.

Individual members of the committee visited the Training Schools for Feeble Minded Children at Vineland, N. J.—Dr. E. R. Johnstone, superintendent; at Owings Mills, Md.—Dr. F. W. Keating, superintendent; and at Mt. Airy, Pa.—Dr. A. L. Crouter, superintendent; the Clinical School of the

University of Pennsylvania, under the direction of Dr. Lightner Witmer; and Dr. Maximilian P. E. Groszmann's School for Nervous and Atypical Children, at Plainfield, N. J. They visited day schools for the deaf at Chicago, Milwaukee, Cleveland, and Boston; day schools for the blind in Chicago and Milwaukee; day schools for mentally defective children in New York, Rochester, Baltimore, Providence, Milwaukee, Cleveland, Chicago, Boston, and Philadelphia; parental schools in Chicago, Toronto, New York, Baltimore, and Boston; as well as many state and private institutions.

We have been aided in our work by the co-operation of Mr. W. A. Baldwin, principal of the Hyannis (Mass.) Normal School, and Dr. F. E. Farrington, professor of education in the University of California, from studies made in European schools; and by the advice of Dr. Lightner Witmer, of the University of Pennsylvania, who by invitation attended the Washington meeting of the committee.

Nearly all provision now in existence for exceptional children in American cities has been made in very recent years. The problem is, therefore, a comparatively new one. Before compulsory-attendance laws began to be strictly enforced, public-school authorities had no adequate idea of its magnitude. Children who could not get along fairly well in the ordinary classes, either by reason of their low mentality or their refractory bearing, or both, often ceased to attend and were absent or truant without the knowledge of the authorities. Doubtless there were as many of these special cases in any community then as there are now; few of them, however, remained long enough in school to allow a correct opinion to be formed as to the cause of their difficulty. They are now in our schools, however, clogging the various grades, chiefly the lower, and we are forced to recognize the existence of a serious problem in connection with their education.

It is a generally accepted principle that every child—normal or subnormal——is entitled to all the education which he is capable of receiving. This principle implies that the state is in duty bound to provide an education for all children capable of intellectual improvement. As a question of good policy the state should see that all children are trained as far as possible to be right-minded, self-respecting, and self-supporting. Many cities at home and abroad are now providing instruction for backward children in the public schools in special classes and under the guidance of specially trained teachers.

In 1867 Germany began the education and training of mentally deficient children in special day classes. The other leading countries of Europe soon followed, developing the work in various ways. The first school of this kind in America was established in Cleveland, Ohio, in 1875. In 1896 the city of Providence entered upon the work of grouping into special classes children who were backward and mentally deficient. Other American cities soon followed, though in a tentative and experimental way. The real movement in this country is only twelve years old.

A discrimination must be made between backward and mentally defective children who may properly be taught in the public day schools, and children so feeble minded that they should be consigned to residential institutions. In the former class are the dull and the backward whose mental processes are slow, who perhaps can never take a high place in the social and industrial life of a community, and yet who under proper instruction are capable of great improvement, and possibly may be trained to self-support. These children require special environment and special training to prevent deterioration. With those incapable of improvement—the imbecile and the idiot—the public schools have nothing to do.

The causes of retarded or impaired brain development are many. In some children this is due to hereditary causes; in others to some physiological disorder, as impaired hearing or vision (often the result of scarlet fever or other diseases); to chronic catarrh, enlarged tonsils, or adenoid growths; in others to an accident, to a blow upon the head or back, to a sudden shock or fright; and in others to malnutrition, a lack of proper nourishment, or to fatigue from overwork. In many cases a careful study of causes will reveal clearly the present condition and the remedy needed. Much of the work is experimental in character and must necessarily continue to be so for some years to come.

Your committee has undertaken in the following pages to set forth in a tentative way its review of American practice so far as it has developed in the treatment of exceptional children, and to suggest certain classifications, and to recommend a few of the plans of work which it finds in successful operation.

For the plan of organization of special classes recently formed in St. Louis and for the details of management of a collection of disciplinary classes in New York City in one building, conducted as a Disciplinary Day School, readers are referred to the Appendix.

For the latest developments in the education of exceptional children in some European school systems reference is made to *Bulletin No. 3* (1907) of the United States Bureau of Education, and to the Appendix.

To print all of the material which we have gathered would be impracticable at this time. It is the opinion of the present committee that work in this comparatively new field is of such vast importance as to warrant the continued interest and support of the Council, and we recommend that a committee be appointed with instructions to continue this tentative study, making such use as it may see fit of the materials which this committee has accumulated, and that an appropriation of $2,000 be made for the purpose of meeting the necessary expenses of a more thoro and exhaustive investigation.

Respectfully submitted,

James H. Van Sickle
Andrew W. Edson
Frank A. Fitzpatrick
Carroll G. Pearse
Lloyd E. Wolfe
Committee

PROVISION FOR EXCEPTIONAL CHILDREN IN THE PUBLIC SCHOOLS

One of the fundamental purposes of a public educational system is to prepare all educable children of school age for a maximum of social service. The recognized educational instrumentalities employed are teachers, courses of study, buildings, and equipment. Children to whom these educational instrumentalities as ordinarily provided do not effectively or sufficiently appeal may properly be denominated "exceptional." They include the following:

Physically exceptional	Sight defective
	Hearing defective
	Crippled
Intellectually exceptional	Mentally defective
	Backward
	Exceptionally capable
Morally exceptional	Truant
	Refractory

We do not know how many exceptional children of any type, or of all types together, there are in the United States, or in any single city in the United States. Accurate statistics are wanting. To secure them is an immediate and pressing need. In London the medical officer reported in 1904 that "At any time at least 10 per cent. of all the children whose names are on the rolls in London are such that, for reasons either of a permanent, or of a temporary but somewhat chronic nature, it may be considered that the ordinary elementary school work is almost wasted on them, and in many cases is actually harmful." It is probable that careful and competent inspection would yield similar results in American cities.

In so far as educational instrumentalities lack adaptation to all children of school age, the number of persons poorly prepared for the duties of life is multiplied, and society suffers through failure to receive from all its members a maximum of social service. Then our problem is—what changes should be made in our educational instrumentalities that these exceptional children may acquire the power of adaptation, to the end that they may render to society as great a social service as possible?

Care should be taken that any proposed changes in educational instrumentalities for the purpose of making provision for exceptional children shall not be so extensive as to work injury to the whole body of children. Communities must also endeavor to solve the problem of provision for exceptional children with the least possible segregation, because the school as a whole composed of exceptional and non-exceptional children is, in miniature, the society for whose service the exceptional pupil is being prepared. Therefore, to keep in view this fundamental principle of a maximum of service to society, any changes in educational instrumentalities that are beneficial to both the exceptional and the non-exceptional child in their coeducation should be welcomed.

We now come to inquire what further principle should control in the modification of educational instrumentalities as above contemplated. It is believed that a fundamental principle will be found in a stronger appeal to the motor side of the child. This appeal should be made not alone through actual doing, as in manual training and trade instruction, physical culture, games, natural science, and industrial excursions; but through pictures on canvas, on screen, and in books; through a reading of lifelike, detailed narration of representative achievement in all the fields that make strongly for human well-being; and through greater emphasis upon oral composition, discussion, and debate.

Assuming that any modification of the course of study to make it better adapted to the needs of all children would reduce the number who would be classed as exceptional, the importance of suitable revision of the traditional course of study can hardly be overestimated.

Scarcely second in importance to readjusting the course of study is a proper classification of pupils. In dealing with large numbers of children absolute perfection in grading is obviously out of the question, but a close approximation is attainable. The grouping of children into classes should be made with reference to their working power, each class working ahead without reference to the rate of movement of slower or faster groups, no children unduly hurried over the courses and none held back on account of slow-moving schoolmates. Annual, semiannual, or even more frequent reclassifications, if general for a school or school system, result in more or less repetition or retracing of steps for a large number of pupils, a few in each class. Very soon after children enter the first grade it is possible to make a tentative grouping in classes according to maturity and ability. The division of a class into sections for recitation and seat work facilitates early readjustments as individuals are discovered from day to day who belong in a stronger or weaker class of the grade. Such changes should be made without delay. In the course of the first few weeks the classes of beginners, if there are several, or the sections, if there is but one class of the grade, are properly organized for steady forward movement. The movement of a given class should be like that of a river which keeps its identity throughout its course, although it receives reinforcement from tributary streams and sustains great losses by seepage and evaporation. Our typical class, as it moves through the eight grades, will from time to time part with a pupil to a slower or faster moving class or division, or will become depleted by the permanent withdrawal of children who, having reached the age limit set by the school-attendance law, seek employment; but these and other losses are made up by the reinforcements from other sections or classes of individuals who find the rate of movement of this particular stream better suited to their powers than the too swift or too slow current in which they have been. A period of illness may be the cause that brings one pupil over from an advanced class into our typical class; a sudden accession of mental strength due to natural physical growth may bring in another pupil from a lower class. Whatever the cause, whenever the need arises it should be discovered or recognized by the teacher and the adjustment made. There should be no time of the year when this cannot be done.

Corresponding in importance to classification according to working power in the grades is provision for choice of studies in the high school, and an arrangement whereby the number of studies carried by different pupils at one time may vary according to their differing mental and physical strength.

To care properly for the child of average or somewhat more than average capacity, a plan which permits of ready and easy ascent from a lower to a higher class will suffice if wisely administered.

THE EXCEPTIONALLY CAPABLE

But the gifted child, with his insight bridging great gulfs whose mazes he does not know and needs not know, must not be stopped in his flight to trace the steps necessary to the child of average powers. The real test of ability to go on with his studies is an affirmative answer to the question: Does he know enough of what he has gone over to pursue with profit what is yet to come?

The educability of a child depends upon the nature and quality of his mental reactions and on his physique and his moral qualities. If the qualitative question is superseded by a quantitative question by his teacher, who does not appreciate the situation, a usual result is retardation in his progress. Since the question is chiefly one of quality rather than of quantity, the complete isolation of the gifted pupil, either by leaving him in a class of pupils of far less ability or by dealing with him individually, would have a tendency to diminish, or rather deteriorate, the quality of his own reactions.

Much of the retardation now noticeable in the first, second, and third grades arises from the teacher's desire to enforce a quantitative accomplishment of certain tasks. She can measure only quantitative progress; therefore she is too often heedless of flashes of brilliancy, which should suggest to her the calibre of the pupil, and she brings him back again to earth by the demand for the doing of a specific task—one that perhaps has little relation to his powers and activities. So the course of study which deals with the conventional studies, probably necessary for most children, may become a hindrance alike to the backward and the gifted child.

There is measurable agreement so far as the training of the backward child is concerned. With the specially gifted child, however, questions of temperament, of quality of mind, of trend of mind, crowd themselves forward to such an extent as to make any general solution extremely difficult. Here consultations with parents, with competent authorities in psychology and pedagogy, the grouping of such pupils in a class under a teacher gifted with temperament and personality, are necessary conditions.

In our conception of what the gifted child should do we are inclined to look too exclusively upon the shorter time in which he can accomplish the tasks of the conventional course of study. Until we comprehend that for the gifted child a somewhat different atmosphere should be provided; that too, a different curriculum should be developed, we shall accomplish little.

While the saving of time is not unimportant, the really important consideration is the ideal of effort and accomplishment which the child is forming. It is essential, therefore, that these gifted children have the stimulus that will react upon them in such a way as to cause them to become as vigorous in will as they are acute in intellect; for there is reason to believe that great achievements in leadership are due more to strength of will than to mere intelligence.

This is a very difficult problem. It has not yet received the attention which its supreme importance warrants. In Worcester, Mass., Indianapolis, Ind., and Baltimore, Md., special provision has been made for pupils of ability in the last two years of the elementary school course. In Germany, notably in Mannheim, some progress has been made in the study of this question, but as yet no wholly adequate solution has been put forward.

THE ABNORMAL

In making provision for the public-school education of exceptional children attention must be given to those who are more or less handicapped by some physical defect, to those who depart only temporarily from normality, to those commonly known as slow or backward, and to educable children of defective mentality. Among the instrumentalities which are of great use in dealing with such children, three are so generally useful and usable that they deserve special mention. They form a sequence considered with reference to the cases to which they apply and are (1) the *Special Help Period*, (2) the *Special Class*, and (3) the *Parental School*.

1. *The Special Help Period*

In almost every class of thirty or forty pupils some members of the class will each day need special attention and help from the teacher.

It may be that a pupil has been absent and thus missed some lessons; or he has failed to comprehend some instruction given to the class; or some subject may offer special difficulty to him and this help and encouragement are needed to keep him abreast of his schoolmates. It may be that the pupil needs some counsel or admonition concerning his manners, or his behavior, or his attitude toward his classmates or toward the school work in general.

The best teachers always find time for this work in some way. If a special time in the daily order is set apart for it, no teacher has any excuse for neglecting it. The regular time suggests the duty, and this important phase of school work is not likely to be omitted.

In the four or five upper grades this object may be accomplished either by setting apart a special period to be devoted to special help as above, or by releasing from a given recitation, from time to time, those pupils who are well prepared on the special phase of a subject under consideration, the teacher meanwhile devoting her attention to the pupils who are less strong in that topic. The pupils excused from the recitation may devote their time to a subject on which they are not so well prepared, or to suitable reading, or to assisting fellow-pupils. They are gaining power of self-direction and self-reliance by doing independent work while the teacher secures needed opportunity to give individual or group assistance to those who need it.

Children who are unable by means of these forms of special help to complete the work of a grade in the time required by the majority of the children in the slowest division may be out of place in any regular class, but they should be carefully studied by the school physician as well as by the teacher and principal before a transfer to a special class is determined upon. Perhaps a change of teacher is the proper remedy.

2. *The Special Class*

The special class may include five types:

a) The Ungraded Class, for misfit children of normal powers and dispositions—sometimes called the "helping class."

b) The Disciplinary Class (or School), for truant and refractory pupils.

c) The Special Class, for children of defective mentality.

d) The class for the deaf.

e) The class for the blind.

Crippled children, if not hospital cases or too seriously crippled to occupy an ordinary school seat, may be taught in any regular or special class for which their mental powers fit them. Transportation is here the chief problem. Some cities make this a charge on the public purse. In 1904 Berlin started an open-air or pavilion school for children with heart or lung symptoms. Providence, Rhode Island, began a similar educational enterprise in January of the present year. (See Appendix.)

In small cities the special cases falling under (*b*) and (*c*) might form a single class. There is good authority for saying that it is not necessary to separate the epileptic feeble-minded from other feeble-minded and backward children nor even from the disciplinary cases. The refractory boy is made more gentle and sympathetic by being allowed to help the teacher care for an afflicted classmate. In large cities only is it possible to follow strictly the above classification, and there only where the population is densest; nor is it necessary to do so. The refractory are often to some extent mentally defective. No hard and fast line can be drawn between the mentally defective and the backward, nor can a final classification of cases be made quickly. The special class must at first be a sort of clearing-house to relieve the regular classes of misfit material. There, gradually and carefully, each case is to be studied at leisure and ultimately placed where it belongs.

a) *The ungraded class*, for misfit children of normal powers and dispositions.—In most large schools children will be found for whose needs the special-help period does not sufficiently provide. These may be young foreigners who do not know the language; they may have had good educational advantages or very scanty ones in the country from which they came. Some children entering the school may not have had any good schooling. Sometimes a boy of fourteen enters who has had no teaching of any kind, or who has been entirely neglected in certain studies; such a boy must enter a first or second or third grade if placed where he can do the work the class is doing. Yet a boy of this age will be humiliated if so placed, and is likely to embrace the first opportunity for leaving school. It may be that a pupil has been badly taught or for some reason has failed to make progress in some one or two studies, these studies being such as to make it impracticable for him to go on with the class.

All these cases and others require the ungraded class. Such a class must not contain more than twenty or twenty-five pupils—few enough to permit much individual work. Pupils of this kind placed in charge of a teacher chosen because of special fitness for this service can, by special adaptation, gain what they need in order to enter classes with pupils of corresponding age and general ability. Not infrequently this ungraded or "helping class" can be made to serve the need of pupils who are especially strong, and capable of doing more work.

Ungraded classes of this type are not for disciplinary cases nor for children of weak or deficient mentality; they should be reserved for those children whose powers and inclinations are normal, but who, from lack of proper advantages, have not been able to make the progress which children of their ages should show.

b) *The disciplinary class* (*or school*), for truant and refractory pupils.—Not uncommonly teachers find in the class one or more pupils not amenable to ordinary means of control. These children in various ways take the time of well-disposed pupils and interfere with their studies and their comfort. They take up a great deal of the time of the teacher, and demand attention and nervous energy which belong of right to the whole class. What is quite as important, not all teachers understand these troublesome pupils, and therefore they do not receive the management and instruction which they need.

For such children the disciplinary class is a necessity. It is, at least for a time, the proper place for them, whether they are habitual truants, or turbulent and rebellious, or obstinate, sulky, and contrary, or whether they are abusive and cruel to other pupils, or vile in habits of speech and corrupting to their schoolmates. They are disqualified for association with well-disposed pupils and for receiving instruction in the usual classes and under the usual school conditions.

Such schools, placed in easily accessible localities, may occupy one or two or several rooms, as the number of pupils tributary to them may require. These schools must first of all be put in charge of teachers who understand such children, who know how to control and teach them, and who have a real interest in their progress and welfare. The course of studies should be arranged with more flexibility than is necessary in the usual schools. Special equipment should be provided for manual training and gymnastics. Special arrangements between these schools and the attendance department will make it possible to deal with truancy in a more effective manner than is practicable under usual conditions. The number of pupils to the teacher in these schools, as in ungraded classes, must be smaller than in regular classes.

Such variations from the usual conditions permit great progress in bringing these troublesome children into conformity. Not all members of these schools acquire enough self-control to permit them to leave the disciplinary school; but many who, when sent there, are more or less refractory, overcome their faults to such an extent that they may be returned to the regular classes in their home schools. In new surroundings the refractory boy is likely to be regarded as less of a leader than perhaps he was in his former school. He finds his supremacy disputed by earlier comers who resent any attempt at domination on his part, and who, though without definite intention to aid the teacher, nevertheless help to give the newcomer a more modest bearing.[1]

c) *The special class*, for children of defective mentality.—If it were not for the fact that the presence of mentally defective children in a schoolroom interferes with the proper training of the capable children, their education would appeal less powerfully to boards of education and to the tax-paying public. It is manifestly more expensive to maintain small classes for slow and backward children who will profit relatively little by the instruction they receive than to maintain large classes for children of normal powers But the presence of one or two mentally defective children in a class so absorbs the energies of the teacher and makes so imperative a claim upon her attention that she cannot under these circumstances properly instruct the number commonly enrolled in a class. School authorities must therefore greatly reduce this number, employ many more teachers, and build many more schoolrooms to accommodate a given number of pupils, or else they must withdraw into small classes these unfortunates who impede the progress of normal children. Of the two expedients the latter is the less expensive. The practice of teaching these children in separate classes is now fairly well established in large cities, and superintendents and teachers are working on the problem of their proper classification, so that the school may make the best of this imperfect material.

The reasons which require normal children in the grades to be classified as far as possible according to working power apply with even greater force to the backward and the defective. Against this view we occasionally hear of the helpful influence of the more gifted upon their weaker or slower or more indolent classmates. If, however, their scanty power of attention, their mental indolence, or their lack of moral balance are due to physical causes, either temporary or constitutional, the more brilliant response of mentally capable children, far from tending to spur these children on to better accomplishment, will tend to discourage them and to produce all kinds of moral defects. An environment that stimulates growth is one in which each individual gets a chance to show that he can do as well as others in the group. If he can do some one thing especially well in comparison with others, his success has the effect of making him courageous and hopeful. In intellectual work a child gets along best in that group whose members are nearest to his own mental condition, just as in athletics he is more energetic and makes more improvement when competing with others of somewhat similar strength. To compete with one who is sure to win despite our best efforts is disheartening, and the will fails to act energetically.

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[1] Miss Olive Jones, principal of public school No. 120, special, for refractory children, Broome Street, New York, whose school the committee visited, has at our request furnished an account of the origin and progress of her work. See Appendix.

The main purposes in providing special training for children of defective mentality are to arouse dormant energies, to strengthen muscular and nerve powers, to cultivate and strengthen the intellectual, moral, and aesthetic faculties, to develop the power to obey directions, to cultivate self-control, and to train to self-dependence and to a mastery of some useful occupation.

In the education and training of mental defectives there are certain advantages in occupying one of the classrooms of a public-school building; they are in this way led to feel that they are "a part and parcel" of the school community. In their association with normal children on their journeys to and from school, on the street and on the playgrounds, and in some of the general exercises of the school, the defective children receive a valuable training. Opportunity may be offered a child from the special class to go to a regular class at a certain hour of each day and participate in work in the subject in which he shows the most interest and greatest aptitude. This limited association of children of all mental grades, if under proper direction, will lead normal children to be kind and considerate to those in special need of guidance and help.

The advantages attending the location of the special class in one of the rooms of a public-school building are thought by some to be outweighed by the disadvantages. In St. Louis small dwelling-houses are rented for the purpose. In Christiana, Norway, and in some other cities abroad separate buildings are used. (See Appendix.)

The room selected for the special class should be large, sunny, and well equipped, located if possible on the ground floor, and accessible to the street, toilet-room, gymnasium, and playgrounds. The following equipment is provided in the city of New York: Fifteen movable and adjustable seats and desks; a number table three feet square; six work benches with equipment; physical training equipment—wands, dumb-bells, Indian clubs, ladder; display cabinet; a piano; running water, and a porcelain sink.

In the selection of teachers for defective children special care is needed. Among the chief requisites are the following: An even and sunny temperament; infinite patience; unbounded tact; firmness that leads one to hold steadily to a course in spite of all obstacles; great resourcefulness in providing ways and means for carrying on the work to the best advantage, even when ready resources are limited; an intense human sympathy with and love for these children so much in need of a helping hand; unbounded faith in the work; and an appreciation of effort that gives to the children constant hope and encouragement. The management of these children must be kind and sympathetic. In most cases they are unusually affectionate and will respond quickly to any reasonable demands of the teacher. Praise and encouragement at every effort are the indispensable means of arousing dormant energies. These teachers should have the spirit of a student; they should be familiar with the best literature on the subject; and they should visit schools and institutions for the training of exceptional children in order to become familiar with the best work of the kind.

As has been well said, the great need of such schools is "Forward teachers for backward pupils." Such teachers can be found in any corps, teachers who have the natural qualifications and who are willing to undertake the necessary preparation. There are always some who are willing to engage in work somewhat out of the usual order, or to undertake the work from a missionary spirit.

The education and training offered subnormal children should be adapted to meet their individual needs. The course should be flexible and of direct practical value. In the line of physical education the effort should be to develop a good physical organism. This can be done by giving emphasis to personal hygiene, to the value of frequent baths, of pure air, of well-directed exercise, of rest and relaxation. These children always respond readily to interesting exercises and games, as in marching in step to music; calisthenics, military drill, and folk-dancing; kindergarten games, hop, skip, jump, running, and May pole; in exercises with dumb-bells, wands, and hoops; and in all common games that require vigorous exercise. In all of this work the co-operation of skilled physicians is essential to the highest success.

In manual and industrial lines the attempt should be to develop dexterity, skill, and motor control. All children can be trained effectively through well-organized manual work, as in cutting, folding, and weaving, and in constructive work in cardboard, wood, leather, and iron. Elementary work with cord and raffia, sewing and garment-making, cooking, table-serving and housekeeping, shop-work in various forms, are pre-eminently practical and educative.

In any appeal to the intellectual the attempt should be to cultivate mental alertness, to awaken and quicken the special senses, to strengthen the powers of attention, memory, and judgment, and to develop well-balanced will-power.

One of the earliest and surest symptoms of mental defect is the inability to concentrate the mind for any time upon one line of thought. Interest must be the keynote to continued application. Humorous and interesting stories told or read, short memory selections, language lessons in which distinct articulation and connected thought are made prominent, will tend to strengthen the intellectual powers.

In the games in which the pupils may be encouraged to participate, in the singing exercises, in the lessons on cleanliness, orderliness, obedience, helpfulness, and conduct, the elements of good morals and gentle manners should be implanted.

In order to have the work well systematized, to note changes and evidences of growth, and to be sure that each pupil is receiving individual attention, a simple form of pedagogical record should be kept by the teacher.[1]

d) *Day schools for the deaf.*—For many years practically all the deaf children, or those whose hearing was seriously impaired, were taught, if taught at all, in state or private institutions. In these schools the students formed a class apart from the community. They received intellectual education, often industrial education also, but they did not have the opportunity to retain knowledge of or connection with the community. They were separated from their homes and from the members of their families. They grew, under these circumstances, more and more apart from their families, and more and more apart from the members of the communities in which their homes were. They became more and more dependent each year on the special means of communication which they practiced among themselves, and were very little able to communicate with or be comfortable in the society of the other people of the community. A tendency developed among them to associate with one another to the exclusion of other persons. This tendency led to intermarriage of deaf persons, to their settlement in neighborhoods, and showed a tendency, noted nearly a generation ago, toward the development of a deaf variety of the human race.

The most powerful deterrent to this tendency has been the establishment of day schools for the deaf. To these schools children come each day, returning to their homes at night. They remain members of the family; they mingle on the playgrounds and in the street with hearing children and with other persons of the community. They are taught exclusively by the "oral" method, that is, they are taught to read the lips of those who speak to them, and are taught, step by step, to use their organs of speech, to develop their voices, and to speak as other people do. They use the same textbooks that other children use. By the time that they have passed through the grades of the schools below the high school, they are able to go about, speak, and understand much as other children of similar age do. In a number of cases they go on into the high school, taking their places and carrying on their work successfully in classes with hearing pupils. They are able to take their places as members of the community, to engage comfortably in many occupations pursued by hearing people, and, in general, have ceased to be members of a class apart.

These schools are much more costly per pupil than the usual day schools. The number of pupils to a teacher is necessarily small, ranging from five to ten, and education in such schools therefore costs four or five times as much as for normal pupils. But the cost is only about half as great as where the children are cared for in institutions for the deaf, while the results are of far greater value.

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[1] A suitable form for such record and a description of the method in use in the city of New York for determining which children may with advantage be transferred to the special class are given in the Appendix.

Deaf children do not usually begin to learn language or speech until they go to school at the age of five or six or more years. Hearing children at this age have a considerable vocabulary and speak freely. A new departure has recently been made in which deaf children are taught language and speech at the age when hearing children acquire these arts. When farther developed, this is likely to prove a great aid to these children and should make it possible for them to be farther advanced at the time of entering regular school classes than they can be under arrangements heretofore existing.

e) *Day schools for the blind.*—Of the blind, as of the deaf, it is true that until recently their chief reliance for education has been upon institutional schools. Within a decade day schools for the blind have begun to be established in different cities. In these schools, as in those for the deaf, the number of pupils to the teacher must be small, ranging from five to ten. A special room must be set aside in which they may study under the guidance of the special teacher.

The pupils use the same books as the seeing pupils in the regular classes. These books are printed for the blind pupils in "point" letters. The pupils write out their exercises in point letters by using little "slates" and typewriters which have been invented for their use. After the pupils have prepared their lessons in their study-rooms they go to the regular schoolrooms and recite with the seeing children, taking their regular turn in the reading, the spelling, the geography, and the other lessons.

These schools have advantages for blind children similar to those that the day schools for deaf children have for the deaf. The blind do not seem to be quite so much cut off from their normal fellow-men as the deaf, nor is there so strong a tendency for them to shut themselves up in the society of those similarly afflicted and for that reason familiar with the special means of communication among themselves. But the day schools will make it possible for blind children also to remain members of the home, and will make it unnecessary for them to lose in institutions that touch with the community and with their fellow-men which it is so desirable that they should retain.[1]

3. *The Parental School*

Every large community has a number of children who are homeless or whose home conditions are bad, perhaps so bad as to be worse than if they were homeless. For homeless children who are likely to fall into bad ways, and for those whose home conditions are bad, a parental school should be maintained. Such a school is not a "reform school," to which young criminals are to be sent. These belong usually in reformatory institutions maintained by

[1] For an instance illustrating the value of day-school associations see Appendix.

the state. But to such a school ought to go those homeless children and those from unfortunate homes who are about to become or are in danger of becoming criminals if they are not properly cared for. These children are generally truants. They are wayward, and they may have bad, even criminal, associates, though they themselves have not yet taken the plunge into criminal ways. It is infinitely better and far less expensive for the public to provide for these children a parental or home school, where they may be regulated and educated for useful and industrious lives, than to allow them to go on into lives of crime and pauperism.

Such a parental school should be situated in the country where land may be cultivated in garden and fields. The buildings should be arranged on the "cottage system" and should provide for the sanitary housing of the boys and girls sent there, under conditions as little different from wholesome family life as possible. Here regular habits of sleeping, rising, work, study, and recreation may be taught by precept and confirmed by steady practice. Not only lessons from books but lessons from life may be inculcated, and a good disposition toward the authorities of the school and toward the fellow-pupils who are the fellow-citizens of this school community may be made the forerunner of a good disposition toward the authorities of the state and toward the fellow-citizens of that state, which will later take the place of the school.

In this parental school these children should remain until they may safely return to their homes, until new and satisfactory homes are opened to them, or until they arrive at years of discretion and develop stable characters.

APPENDIX

Following is a brief list of some of the best books and articles available on the subject under consideration:

ANAGNOS. *Education of the Blind.* Rand-Avery.
ARNOLD. *Method of Teaching the Deaf and Dumb.* Macmillan.
BERR. *Mental Defectives.* Blackiston.
BELL. *Visible Speech.* Volta Bureau.
BUTLER. *History of Education in the United States.* Lyon.
DONALDSON. *Growth of the Brain.* Scribner.
DOWN. *Ethnic Classification.* London Hospital Reports.
DUBOIS. *The Psychic Treatment of Nervous Disorders.* Funk and Wagnalls.
FERNALD. *Reports and Addresses.* Waverly, Mass.
HENDERSON. *Dependent, Defective, and Delinquent Classes.* Heath.
IRELAND. *Mental Affections of Children.* Blackiston.
IRELAND. *The Blot on the Brain.* Blackiston.
JOHNSTONE. *Reports and Addresses.* Vineland, N. J.
LOMBROSO. *Man of Genius.* Scribner.
MACDONALD. *Abnormal Man.* Bureau of Education.
MACKENZIE. *Medical Inspection of Schools.* Hodge.
MAENNEL. *The Auxiliary Schools of Germany,* Bulletin No. 3, 1907, United States Bureau of Education.
NORDAU. *Degeneration.* Appleton.
NORSWORTHY. *The Psychology of Deficient Children.* Science Press.
OPPENHEIM. *The Development of the Child.* Macmillan.
PRINCE. *School Administration.* Bardeen.
RACHFORD. *Neurotic Disorders of Childhood.* Treat.
RIBOT. *Diseases of Memory.* Watts & Co.

SHUTTLEWORTH. *Mentally Deficient Children.* Lewis.
SEGUIN. *Idiocy and Its Treatment.* Wood.
STORY. *Speech for the Deaf.* Hughes and Harber.
TALBOT. *Degeneracy; Causes, Signs, and Results.* Scribner.
WARNER. *The Nervous System of the Child.* Macmillan.
WARNER. *The Study of Children.* Macmillan.
Education, Vol. XIX, p. 195, December, 1907.
Educational Review, Vol. VII, p. 423; Vol. IX, p. 105; Vol. XX, pp. 296–302; Vol. XXVI, p. 362; Vol. XXXI, p. 484; Vol. XXXIII, p. 374.
Pedagogical Seminary, Vol. III, p. 246; Vol. IV, p. 221; Vol. V, p. 386.
National Educational Association, 1898, p. 270; 1900, p. 677; 1901, pp. 500, 820, 876; 1903, pp. 986, 1013; 1904, pp. 744, 754.
Ed. Record, November, 1903.
Report of United States Commissioner of Education, 1898–99, Vol. I, pp. 303–56; 1891, p. 775.
Charities, September 3, 1904. New York.
Journal of Psycho-Asthenics. Minneapolis, Minn.
Psychological Clinic. Philadelphia, Pa.
The Training School. Vineland, N. J.
School Work, November, 1905. New York.
Reports: Massachusetts, Connecticut, and Providence, and London, England, School Boards.

SPECIAL CLASSES IN ST. LOUIS

In November, 1907, the superintendent of instruction reported to the Board of Education of St. Louis that there were at that time in the various public schools of the city 181 children so mentally defective as to be incapable of doing the regular school work provided for normal children. These were not merely slow or backward children. They were unable to do either the amount or kind of work which even a slow child can do; yet those children were considered capable of education with educational facilities adjusted to their needs, and with constant supervision of their physical condition. Nine children cited by Superintendent Soldan as typical of the entire list ranged from nine to fourteen and a half years of age. They had attended school from three to six years. Four had not advanced beyond the first grade; and only two had advanced beyond the second grade. "Nature," says the report, "puts the defective child in a class by himself and Education should take Nature's hint." It was recommended that twelve schoolrooms be selected and equipped, not as makeshifts, but in the best possible manner with a view to meeting a permanent demand. As to location, the report discusses the advantages and disadvantages of a central school; of vacant rooms in existing schools; and of small houses to be rented for the purpose; and recommends that ordinary two-story, six-room houses conveniently located with reference to the homes of the children be rented. Each house is to accommodate two classes of fifteen children each and leave room enough for work and free movement and some yard room for recreation. Transportation is to be furnished to those children whose homes are not within walking-distance. There are to be two teachers in each center, and a woman attendant who will live in the building and take care of the heating and cleaning and at times assist in taking some of the children to school. The instruction given will not follow any fixed course but will be adapted to individual needs. The teachers must be exceptionally capable and sympathetic and will be among the best-paid teachers in the service. Some strong teacher is to give her whole time to the supervision of these classes and medical attendance is to be furnished. Imbecile or demented children are not to be admitted, nor are merely slow or backward children to be taken from schools near their homes and put into these classes. Attendance is not to be made compulsory. If the new institutions are made so excellent that it is a clear advantage to each defective child to attend, it is argued that no compulsion will be necessary. Should a parent prefer to send his child to one of the regular schools, no objection is to be made provided the child does not disturb the rest of the school by his presence.

To meet the present needs of the city of St. Louis for the education of defective children, the Board ordered that three houses be provided and they appropriated $12,000 to cover the expense of the special schools for the remainder of the present school year. A later report shows that three special school centers of two classes each organized on the above-described plan are now in operation and that each center has a waiting list of applicants for admission.

PUBLIC SCHOOL NO. 120, SPECIAL, BROOME ST., NEW YORK

In New York, when a case of truancy or incorrigibility develops, the usual method of procedure is as follows: The boy is suspended by the principal, after giving him many warnings and trials under different teachers. Official notice is sent to the parent and to the district superintendent. Parent and child are summoned to appear before the district superintendent. If upon investigation it is evident that the parent is to blame, warning is given the parent that the next offense will result in a summons to a magistrate's court and consequent fine. Whether parent or boy be in fault the boy is, if possible, transferred to another school, the principal of which is informed of all the circumstances in order that he may place the young offender where he will receive proper watching and care. The boy is also required to present, at the district superintendent's office every Saturday, a parole card giving a record of his daily attendance and conduct.

In the vast majority of cases this procedure is effective. If it fails, parent and child are again summoned to the district superintendent's office and previous threats are carried out. Right here is the point at which the system breaks. For often it happens that magistrates will not fine the parents and the schools suffer from lack of their co-operation, although, to be sure, conditions have slightly improved in this respect during the last year. It is, however, one first cause for failure. The second is that the accommodations of the two parental schools are not at all proportionate to the school population. Consequently we have threats of confinement and signed commitment papers, but the waiting list is so long that, as the boys phrase it, "Nothing happens if you play hookey"—and they try it yet again.

Sometimes vacancies are created by returning the best-behaved boys to their homes and the regular schools before their term has really been completed. Most of these relapse. Sometimes the worst behaved are sent from the parental school to reformatory institutions. Nothing could be worse for reasons connected with such institutions to be noted later. The superintendent of my district wished to commit no more boys to reformatory schools, but to seek some other mode of reform, and finally succeeded in inducing the School Board, after long consideration, to establish a special school.

The reasons for the need of constant individual care are:

1. Absolute lack of parental control.
2. Lack of any influence for good outside of the school.
3. Low, poor, degrading home surroundings.
4. Street influences, gangs, "Fagins," crap-shooting, the small candy stores with their slot machines, indecent postal cards, back rooms where boys are allowed to smoke and gamble, the "call of the street," "*Wanderlust.*"
5. Exaggerated personal peculiarities, physical or mental, which expose them to the ridicule of their mates.
6. Lack of religious teaching.
7. Physical defects.
8. Defective mentality.

In addition to these causes for incorrigibility and truancy, there are certain special causes which operate, directly or indirectly, to produce truancy. The first of these is the employment certificate system under the New York Child Labor Law.

The second of these special causes is in consequence of the fact that school authorities in New York have no power to enforce attendance upon school by the truant under eight.

The third is a psychological influence tending to truancy and incorrigibility, arising in the third, fourth, and fifth school years.

Recognizing these influences tending to corrupt character and produce delinquency, the work of the special school was planned.

The register at the date of opening, October 18, 1905, was 36; by the end of November, 109. A list of 200 names was given me. Recognizing the dangers attendant upon gathering in large numbers of boys of such character, especially in such an entirely new, experimental manner, the number was increased very gradually, beginning with the very worst cases. The highest register possible at any one time is 135. Usually the register is not allowed to run over 125, so that there may always be room for emergency cases. At this date, June 30, 1907, the whole number of pupils admitted since the school opened is 304, coming from public schools and parochial schools within a radius of one mile from the school building, which is situated in the heart of the worst section of the lower east side.

Sixty-five have been returned to public schools, forty-five of whom went with our recommendation as reformed. All but three have been reported as giving complete satisfaction by the principals of the schools they have since attended. About forty have been sent to public institutions. Of these five were arrested and committed on my complaint; four by my recommendation, although arrested on outside charges; three were committed on charges of the parents; one was a hopeless defective taken from an immoral home; the rest were arrested and committed on charges by the police, mostly for larceny.

About seventy have gone to work. Some important facts in relation to these boys are worthy of note. About twenty-five left at 16, having been compelled to remain until that age because of their inability to fulfill the requirements of the New York Child Labor Law. Our most severe difficulties are always encountered with these boys who resent the law and, aided and abetted by their parents, visit their resentment on the teacher in the classroom. Twelve were allowed to go to work before 16 without an employment certificate. It was a manifest injustice to retain them, since their only lack was legal proof of age, hopelessly unattainable in the case of a Russian Jew. Seven boys have been lost, one of whom ran away, a most distressing case of moral and mental degeneracy.

It is impossible to make an accurate general estimate of how long it is necessary to keep boys in the school before returning them, for two reasons:

In order to make a careful study of all the conditions which have tended to make these boys truants and incorrigibles, and in order to test the thoroness of their reform, many of these were kept for longer terms than was really necessary.

There are some boys who can never be returned to a regular school. These boys are not, however, institution cases. To place them in an institution would be a great wrong. They are peculiar in many ways; sometimes having tempers which no one has taught them to control; sometimes lacking in moral sense, but capable of learning; sometimes suffering from injustices which have made them morose and sullen. They do not get along well in the ordinary graded class, because the teacher must consider the good of the majority, and, having large numbers to care for, she cannot spare time to give such children individual attention even if she is capable of dealing with the problem. But in all cases they need the active, positive help of a good teacher and surroundings that are as nearly normal as possible. These they get in such a school as ours, because:

In the first place, they receive careful teaching, planned to meet their individual needs and to help them overcome their peculiar difficulties and temptations. At the same time they are made self-dependent because they are not shut out of the life of the home, and must meet the buffets of the world as evidenced in miniature in the life of the street.

In the second place, as already hinted at, it is with sadness recognized that boys committed to reformatory institutions have too frequent opportunities to learn evil from one another. In this school they cannot engage in evil plans to any such extent, for during the day they have no free time together, except for half an hour at noon, and even then they are under the constant supervision of at least two men teachers, who play with them in more or less organized games. At dismissal they go to their homes, often widely separated.

In the third place, they are given a fair chance to become respectable and self-sup porting, when they do go to work, since they leave us with none of the stigma attached to an institution.

The fact that in organization, methods of teaching, course of study, and employment of teachers, we differ in no sense from any other elementary school, has an incalculably beneficial influence on the success of our work. Both teachers and boys are in the closest possible touch with all the schools around and never have any occasion to feel that there is any discrimination against them in ranking and opportunity, or stigma of any kind. Parents who would always absolutely refuse to sign commitment papers and who would, if coerced into it, evade the law and secretly abet the boy's escape, welcome the opportunity. Any suspicion of its being "an institution" has to be carefully removed from their minds before their co-operation can be secured.

We try to keep track of the subsequent career of pupils who have left the school. Our knowledge is obtained by:

Correspondence with principals of schools to which they have returned; correspondence with the boys themselves; visits from the boys; stories of classmates; visits to the homes; investigation by the attendance officer and neighborhood work.

The method of instruction employed is class instruction, except that the gymnasium and shop are worked on a departmental schedule. In the class instruction we use the Group System, since it is naturally impossible to grade the classes evenly. The pupils are classified, now, by grade of mental attainment; originally, by ages, regardless of grade, in order to reduce discipline and moral problems to a minimum. I determined at the outset that each boy should begin his work where he actually belonged, as inability to keep up with the grade he was supposed to be in was the beginning of his troubles. For this reason we dropped the use of grade names and named each class after some great leader or writer; each class under the guidance of its teacher chose its own name and the boys have vied with one another in learning and reciting in the assembly room facts connected with their class hero. This has fostered a spirit of hero worship, the ethical influence of which has been very great and something we did not anticipate.

In the ordinary school subjects we adhere to the same course of study as the regular schools, with the exception that we place greater emphasis upon physical training and manual training. The value of the shop as an incentive to useful, obedient, and trained occupation cannot be exaggerated, and we hope eventually to work it out along the lines of industrial training, and lead the boys to seek some other occupation than the sweat-shop or the office.

Considerable attention is given to physical training and athletic development. One of the most astonishing phases of this work is that these boys, although they live their lives on the street, are unable to do regular physical exercises and know nothing of the games and plays of the normal boy of happier homes. They are awkward, unwieldy, and heavy-footed, with the shuffling gait and hanging head which mark the loafer and criminal as well as the mental defective, and the simplest physical tasks are beyond their strength. In a few weeks' time the change in this direction is very great. Careful drill in marching, in steps, in posture, and exercises, calculated to remedy individual defects, form part of the scheme of work; teams for basket-ball, base-ball, running, etc., have been organized and the boys have learned to do creditable team-work. Here, again, we found an unexpected ethical good resulting from something begun for other purposes. The team spirit, thus induced, has led to personal pride as the member of a team; this personal pride has finally engendered self-respect.

It would do no good to enlarge upon what we had to endure first, then to subdue, and finally to purge by inculcating a better spirit and nobler ideals. Suffice it to say that any one who undertakes this work must be prepared to put all personal feeling aside and to accept vile language, violence, impudence, and insubordination as manifestations of disease, mental and moral disease, to be cured as the physician must cure loathsome physical disease. Parental and neighborhood opposition, from whatever cause arising, must be overcome—best by a series of parents' meetings, visits to the homes, and frequent communication with the parents by mail or by required calls at the school office.

The means by which our task has been accomplished indicate the only method of dealing with the bad boy. A child may be led into crime, but the germ of good is in everyone and it's our business as teachers to quicken and develop it. Punishment does not do it. It takes sympathetic understanding, patience, and power to forgive until seventy times seven and then begin all over again, and skillful teaching planned to meet not only the individual needs but the individual interest. Use every possible incentive to make the school attractive, keep academic requirements in the background, or only incidental, until you have given the boy respect for the teacher, for himself, and for authority. The boys who come to us are pariahs, hunted by the police, beaten by their parents, driven out from the schools, meeting only everywhere harsh treatment and dislike. Take such a boy and make him believe that you care when he tries, that your interest in him is sincerely friendly, and above all, that he cannot make you angry by any misdoing, but that instead you are grieved because he is dishonoring himself. Neither preaching nor scolding will accomplish anything.

As all this indicates, teachers must put themselves into intimate social touch with the boy, make him feel his personal responsibility and the value of pride in himself, help him to help himself. The secret lies in tact, resourcefulness, a sympathy which is a sympathy that never for an instant tolerates familiarity, a calm and indifferent manner, which cannot be roused to irritation, alertness to foresee and prevent crises, and readiness to meet an emergency if it comes. Corporal punishment is not used as a form or mode of punishment although there have been a few instances where its use was unavoidable because the preceding incident precipitated a choice between surrender to the boy with defeat acknowledged to the whole school, or a blow on the spot to inspire wholesome fear and proper respect.

The worst fault of the delinquent boy is lying. If the bad boy is to be helped, he must get at the truth, and be made to see that it is to his best interest to tell the truth.

It should be kept in mind, however, that it is not wise through sympathy and friendly interest for the boy to lose sight of justice and law. There is no possibility to doubt that what our boys need most to-day in our country is a training in respect for law. There must be well-established rules, every infraction of which meets an appropriate punishment, the justice of which is clearly felt and acknowledged. By putting the administering of these rules into the hands of the boys themselves you can succeed in obtaining: first, more effective administration; second, self-reliance; third, respect for the law; and fourth, the beginnings of a thoro training for exercising the privileges of citizenship.

The question of incorrigibility is in a way much harder to handle than that of truancy, because, once remove the causes that tend toward incorrigibility, and the boy ceases to be a truant of his own volition.

A great many people who visit the school ask what methods are employed to secure either attendance or good conduct, and therefore it is worth while to note the following:

1. A system of privileges, based upon the idea expressed in the motto of the George Junior Republic: "Nothing without labor."

2. Commendation, not blame. This is now worked out into several systematically arranged schemes of star cards, commendation cards, honor rolls, special mention, etc. In addition to all these, which are open to the whole school and are managed from the office, each teacher has other schemes. None has any intrinsic value. The worth lies merely in the fact that they express appreciation of results achieved.

3. Trifling rewards: a much-desired book, game, excursion, etc. No prizes except once a term from an outside source.

4. Truant guard, modeled somewhat along the lines of School City.

5. Pride in class record. This has been very strongly developed and is our chief reliance.

6. Visits to the homes.

7. Investigation of the particular influences tending to truancy, etc., in each case with a view to removing the cause.

8. Personal letters to the truant himself, instead of notice to his parents. He comes, even if only to exhibit the letter to his mates. You've got him then, if you work wisely.

9. Individual teaching and care, which make the boys feel the touch of personal sympathy, the nearest approach to affection that comes into many of their lives.

10. Interest in gymnasium and shop.

11. Getting into a boy's confidence, until his haunts become so well known that it is easy to trace him if absent.

12. Ingenuity and quick-wittedness in taking advantage of individual peculiarities. Miss Dunbar "borrows" daily from Isaac Nadler a cent to buy a paper, and promises to return it to him when she sees him in line next morning. Every morning an important message is delivered to the individual (frequently a blank paper in a sealed envelope) by messenger always chosen the previous day.

In short, the methods consist in using every device tending toward the establishment of the habit of regularity.

OLIVE JONES, *Principal*

FORM OF PEDAGOGICAL RECORD USED IN CLASSES OF DEFECTIVES IN THE CITY OF NEW YORK

19 19

Name

	Sept. 20	Dec. 20	Mar. 20	June 20	Sept. 20	Dec. 20	Mar. 20	June 20
Sense Training								
Taste								
Smell								
Touch								
Hearing								
Phys. Train. (imitation)								
Phys. Train. (command)								
Writing								
Industrial Train.								
Language (oral)								
Language (written)								
Reading								
Arithmetic								
Nature Study								
Personal Habits								
Self Control								
Effort								
Gen'l Information								
Power of Attention								
Power of Memory								
Power of Judgment								
Gen'l Health								
Fatigue								
Attendance								

Teacher

The symptoms disclosed by even a superficial examination of a defective child are mental, neural, and physical. His ability to understand, his ability to inhibit and coordinate, his alertness, his sense of humor, his response to questions and directions, his power of application and his ability to imitate closely, his temperament, disposition, behavior, degree of refinement, habits, special tastes, and peculiarities, all reflect the mental status of the child.

His motor control; the general balance of his body while standing, sitting, or walking; his facial expression and eye-movement; the position and control of his head, hands, and limbs, if far from normal; his tendency to restlessness, irritability, nervousness, or hysteria; any evidences of epilepsy or chorea, are nerve signs that evidence the degree of impaired mentality.

And his general bodily development and posture; the peculiarities of his head, its shape, size, and movement; the condition and appearance of the eyes; the size, shape, and appearance of the mouth, together with the throat, palate, tonsils, gums, teeth, tongue; the size and appearance of the nose; the size, location, and symmetry of the ears; the size and appearance of forehead and chin; the shape, size, and control of hands, the condition of flesh, joints, and nails; the shape, size, and control of feet, and position in standing and walking, all serve to assist in determining the mental development of the child.

A preliminary blank filled out by the principal of a school will direct the attention of the medical inspector and assist him in making an examination. The following forms are used in the city of New York:

OBSERVATIONS ON CHILD

PROPOSED FOR SPECIAL CLASS (*c*)

Name ______ Address ______
Age ______ Grade ______ Nationality F ______ M ______
Yrs. in U. S. ______ Home Conditions ______
HEALTH RECORD: Nutrition ______ Bone Dis. ______ Enl. Gl. ______
Teeth ______ Throat ______ Nose ______ Vision R. ______ L. ______
Hearing R. ______ L. ______ Nervous Disease ______
SCHOOL RECORD: K'nd'g. ______ terms 1A ______ terms 1B ______ terms
2A ______ terms 2B ______ terms 3A ______ terms 3B ______ terms
Sp'c'l ______ terms. School Att. ______ Cause of Irreg. ______
Absence in last two terms ______ Attention ______ Memory ______
Oral Exp. ______ Hand Work ______ Phys. Tr. ______ Number ______
Reading ______ Writing ______ Sp. Tastes ______
Disposition ______ Behavior ______ Habits ______
Peculiarities ______
______
______
Other information ______
______
______ 19 ______ ______
Principal

SPECIAL MEDICAL EXAMINATION

Date ______ 19 ______
Name ______
1. General Condition ______
A. Anatomical ______
Cranium ______
Facial Asymmetry ______
Palate ______

Teeth

Tongue Lips

Eyes

Ears

Limbs

Skin

Body in General

B. Physiological

1. Motor Function

Tics Tremors

Epilepsy Nystagmus

Promptness Co-ordination

Prehension R. L. Gait

Speech Fatigue

2. Sensory Function

Eyes R. L. Ears R. L.

3. Condition of Heart Pulse

C. Psychical

Balance Proportion Moral Sense

Attention Memory Will

Peculiarities

D. Development—Att. Diseases

E. Family History: Births Miscar. Deaths

Causes of Diseases F. M.

Medical Examiner

Recommendation

Inspector Special Classes

The following account of the progress of a blind girl through the grades of one of the public schools of Baltimore was written, at the request of the committee, by the mother of the child, formerly a teacher. The child is now in the seventh grade and is doing work that measures fully up to the average for the class.

"This blind child learned her first play from children of normal vision in a public-school kindergarten and, on being sent to a residential school for the blind at six years of age, was then able to distinguish the differences in actions and to miss the kind of play to which she was accustomed. After about twelve months of attendance at the residential school we found that she was developing into a very different child from the one we sent away. Then we were thankful that she was so young; but it took several years of home influence, which means so much to a blind child, to eradicate the evils of association with children from the worst parts of a city.

"Upon the advice of the Superintendent of the Institution for the Blind she was sent to a school among children who could see. He had noticed the change in her and said that a child who has a good home ought to have the benefit of home training. In most of the schools for the blind the number of attendants is insufficient to give the care to young children necessary to train them to be clean both in body and in mind.

"The first year in the public school was an experiment, the lack of books and appliances of all kinds being the greatest difficulty. By using the Braille writer we copied the lessons from day to day and found on every hand someone to suggest ways and means of doing everything. The inability of the teachers to understand that a blind child could comprehend as easily as a seeing child was another difficulty. But after a few weeks that was overcome in every case where a change was necessary. Each year the work of the parents grew easier as they were able to procure more books as the child advanced in her studies.

"She has become so much like the children with whom she associates that they often forget her affliction and treat her as any other playmate. She is independent of them in every way possible for a blind child. From the children she has learned to sew, darn, knit, crochet, cook, and do many other things. She is happy excepting when she comes in contact with another blind person who speaks of his affliction. We have found that among themselves blind children dwell too often on this topic.

"As the writer spent nine years in the schoolroom as a teacher, she feels justified in believing that the child is getting all, and more than all, it would be possible for her to get in a school where she would be among the blind and away from the outside world for the greater part of the year. She has now been in the public schools for four years with no special help excepting from home; but she has not had one complete year of school work on account of her health. She is thirteen years old, is well informed on the general news of the day, is a good musician, and is interested in everything about her. She reads all systems for the blind. On consulting her present teacher in the seventh grade we find her getting as much or more than any child in the class without any partiality being shown her or any extra work being given her by the teacher. It seems to me possible that any parent with a fair education would be able to take a blind child to the high school.

"We have let each year take care of itself, and feel that we are doing the best possible thing for her. We do not find her an exceptionally bright child, but normal in all things."

NOTE.—In a special class for the deaf or blind the special teacher would serve the purpose of this mother to a group of five or six afflicted children, and she would secure the co-operation of other teachers in the building in the ordinary classwork.

Stenographic report of a statement made by MISS PAULSEN, a teacher of a special class in Christiania, Norway.

"In Christiania we have schools for backward and for feeble-minded children, with the number limited to sixteen in a class. We have separate schools for feeble-minded children. These are home schools or boarding schools, the entire expense being paid by the city. The schools for the blind, deaf, and dumb are supported by the state, and not by the city. The schools for backward children are day schools. We have two of them in different sections of the city. It has been found by experience that the backward children do better when taught in a building by themselves, and, therefore, even though the building is quite distant from their homes, they are required to go to this separate school so they shall not be annoyed by the brighter pupils. About eight years ago these classes were taken out of the various schools of the city and brought together into these two schools. It takes some of the children three-quarters of an hour to get to school from their homes.

"Attendance is secured in these schools for backward children in the following manner: If a child is absent one day, a school watchman is sent to his home. If the child is absent a second day, then the teacher writes a letter to the parent. If he is absent a third day, the teacher goes to see the parent. If the child is absent any more, there is one more resource—we get parents who are interested in the welfare of children to visit the parents of the absentee and prod them up about sending the children to school. In other words, the teacher has a mission in educating the parents who fail to send their children to school. If all these measures fail, the principal makes complaint and the parents are brought into court and fined ten crowns.

"The curriculum is greatly reduced for these backward children. All studies are pursued, but in a more elementary way. There is a great deal of hand work, two hours being given to it every second day. This includes cooking, sewing, and knitting for the girls; for the boys pasteboard work and woodwork in a practical way. The large boys and girls learn to cook. Boys and girls are taught together in all schools. We make much of special days. Then these schools march through the streets in procession under their own flag.

"If a teacher in an ordinary school thinks a child in her room is backward, she reports it to her principal who examines the child to see if he is really backward. If he agrees with the teacher, he reports the case to the school for backward children. After that the principal of the backward children's school examines the child. If he agrees the transfer is made. If he disagrees with the teacher, the child must stay where he is. They sometimes give the child to another teacher to see if he will do better.

"The regular school hours for normal children are from nine to one for one set of children; and for another set from one to five, with five, ten, and fifteen minute recesses. For backward children the session is divided into five periods of three-fourths of an hour each. A teacher teaches from nine to one. There is no study in the afternoon. The teacher visits the homes in the afternoon when she has occasion to do so. She visits the home of every child when there is need. When the people are very poor they get clothes, shoes, etc., from the Charity Organization Society. The teacher communicates with the Charity Organization by 'phone."

Selected and adapted from Reports of the Medical Officer of the London County Council, secured for the Committee by Mr. W. A. Baldwin, of Hyannis, Mass.

[*From the Report of 1904*]

SUGGESTIONS FOR THE SPECIAL TREATMENT OF BACKWARD CHILDREN

"It must be evident to anyone who visits many schools that much educational effort is wasted. If the elementary school is to attain its full usefulness it should be made such that a healthy child could attend without being hindered or kept down in level by others whose intelligence is below the average, or whose misfortunes have kept them back. On the other hand, the backward children should have some extra advantages in being taught with much care and trouble some of the conventional abstractions which lie at the basis of ordinary school work, and the realization of which to many forms a step of great difficulty.

"At any time at least 10 per cent. of all the children whose names are on the rolls in London are such that, for reasons either of a permanent, or of a temporary but somewhat chronic nature, it may be considered that the ordinary elementary school work is almost wasted on them, and in many cases is actually harmful.

"To start with, the oculist's examinations have shown 10 per cent. in the standards to have visual acuity, only one-third the normal or worse ($V=\frac{6}{18}$ or less.) They frequently refer cases here, which are not to be considered blind, yet scarcely fit for the ordinary school. In the last Report a table was given comparing the percentage with poor vision among those who were older than the average age in their standards with the others —and showing the relation between retardation in education progress and visual defects. At almost every examination for admission to special schools candidates are presented and returned to the ordinary schools who have visual defects of such nature that some modified education is desirable, apart from being treated as blind.

"A considerable number of children are also somewhat deaf. From examinations by others, and from my own experience in school testing of hearing, it may be taken that from 3 to 5 per cent. are so deaf that they are retarded through their whole school life by this defect.

"Another very considerable number which it is at present quite impossible to estimate are debilitated children. This debility has many causes. It may be congenital; more generally it is acquired early in life; bad nursing and later improper feeding, and the effects of whooping cough and measles play a far greater part in causing backwardness and debility than most people would suppose. In the densely populated parts of any great town many already poorly nourished children, deprived of sufficient exercise, sunshine, and fresh air, have further to contend with illness after illness. Not only does one zymotic succeed another, but tuberculosis is frequently grafted on them, and by the age of seven or eight a considerable number of children have fallen eighteen months or more behind the average of their fellows as regards abilities and school attendance. Even now a small part of this number comes under special instruction owing to the crippling effects of hip or spinal diseases.

"In addition to the children already separated into special classes are others who cannot be certified as fit for these classes, yet who are not fit for the ordinary school work. There are many such dubious cases presented. No doubt a good many in special schools now would do very much better in other schools, if such could be provided without involving the whole course of the ordinary school work—children whose mental constitution is such that abstractions are almost impossibilities to them.

"Some of these seem sharp enough but cannot learn to spell simple words; to some others facile reading of ordinary English will always be impossible. Some of these children are put into special classes, probably in many cases to their harm; others merely remain stationary in the ordinary school.

"Some of this heterogeneous mass of children who, in the progress through school, drop behind are of a mentally lower level, some are handicapped by nervousness and easily overtaxed, others by diseased or damaged hearing, sight, or speech. For these backward children who now are crowded in the lower standards, some intermediate schools or departments of schools are required. The children should be classified according to their capability. Such schools should be organized with smaller classes, and greater elasticity allowing of more attention to individual development by hand and eye training, and work on a modified and simpler curriculum than that desirable in the ordinary school. Such children might also have some extra feeding, more play, and learn almost entirely by doing and saying, instead of reading and writing. Many semi-convalescents in a school of this type would soon recover a sufficient degree of health to regain their ordinary school place. On the other hand, some would remain thru their school days, whilst others would be found wanting even here, and pass to the special class for deaf, blind, physically or mentally defective.

"Children could be transferred from the ordinary school to such schools on the report of the teacher and school inspector. Transfer from these intermediate schools other than back to the ordinary school after six or twelve months interval should only be on a medical certificate. The possibility of a child having to be transferred to such a school if defects remained unrelieved might often be an indirect means of bringing pressure to bear to obtain such relief.

"These ideas have been obvious since first beginning work among the Bradford school children in 1893; but their practical fulfilment was shelved by the establishment of special classes on the London and Leicester model, which is the one that was finally approved by legislation half a dozen years later.

"The experiment of intermediate schools graduated between the ordinary school and the special class has now been tried for some time at Mannheim, and Mrs. F. M. D. Berry, M.D., has drawn up the following account as given at the recent Congress on School Hygiene at Nuremberg, by Dr. Sickinger, member of the Educational Board, and Dr. Moses, the medical officer.

"'The main novelty of this system lies in the fact that, besides the classes of the ordinary schools and the classes for the mentally defective now found in all large educational centers, there is a third system of classes—the *Forderklassen* system. These are for children who, from various causes, are unable to keep up with the ordinary school work. The reasons which caused the Mannheim authorities to found this class system were:

"'(1) The capabilities of children of the same age are very various owing to physiological, psychological, pathological, and social reasons. It is impossible that all children in the elementary schools should follow the same course of instruction, and reach the same goal. A considerable number of pupils never reach the highest classes.

"'(2) The old system by which backward children were left behind in a class when their classmates passed up, and had to go over the same ground again with younger companions, is found to have a discouraging and depressing effect. Such children, too, were liable to be neglected by the teachers. It was considered that children who, from permanent or temporary causes, are below the average in their capacity for work, need special pedagogic and hygienic treatment in order that they might be developed as far as their powers admit, and may not suffer from school attendance.

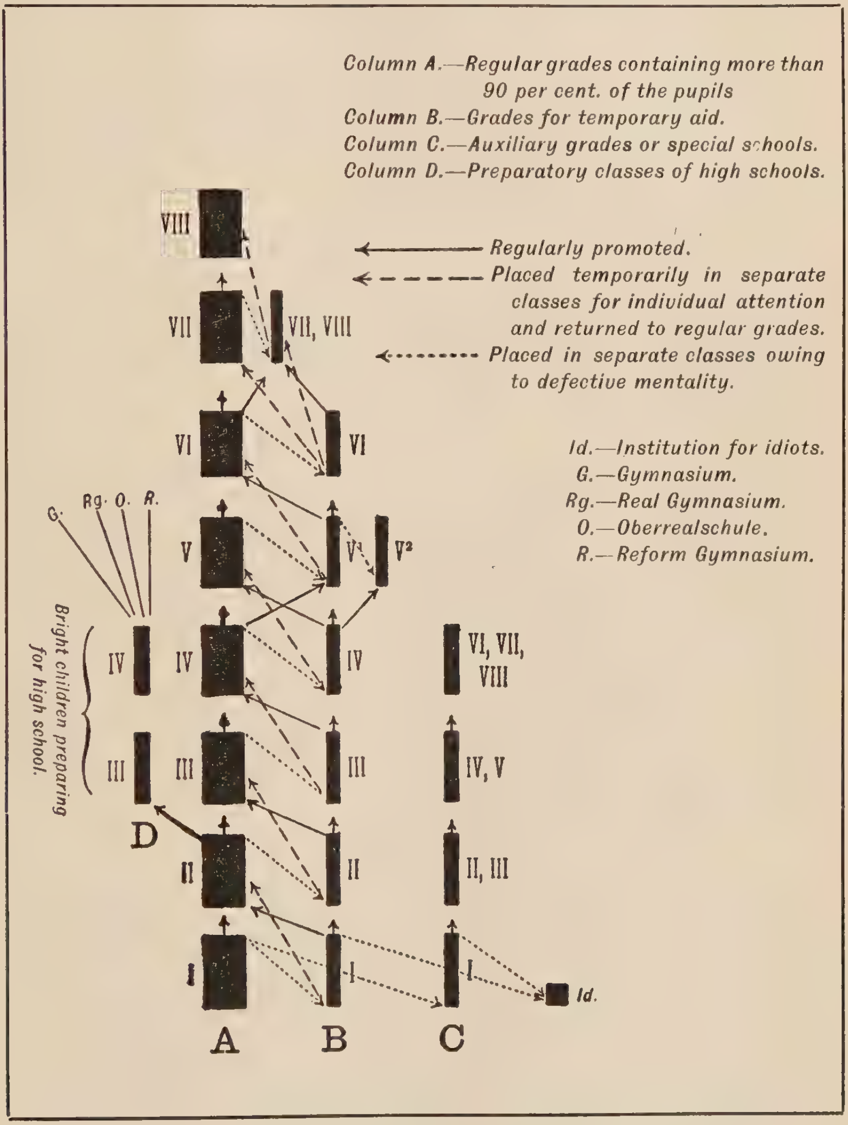
"'(3) The children of better capabilities benefit by the withdrawal of backward classmates, who act as a drag upon the rest of the class.

"'These auxiliary classes, the *Forderschule* system, are run on similar lines to those of the ordinary school—they differ rather in the quantity than in the kind of work demanded. Instead of the seven or eight standards of the ordinary German school the curriculum consists of only five or six. The number of children in a class is smaller, thirty-five being the maximum number allowed, hence greater individuality in the teaching is possible. Special facilities are afforded the children for participating in any hygienic adjuncts to the school, as baths, dinners, or holiday homes.

"'These classes are found specially beneficial to the following groups of children—children who are of slow understanding, but who often are not without intellectual power; nervous, anaemic and debilitated children; children in a low physical and nervous condition owing to unsatisfactory home surroundings; and children with defective sight or hearing, not severe enough to necessitate their being placed in schools for the blind or deaf.

"'The children are usually differentiated at the end of their first year, the backward ones being passed out into the second or third system of classes, according as they are merely backward or actually mentally deficient. One result of the formation of the auxiliary school is that only cases of definite mental deficiency are admitted to centers for instruction of the mentally defective, and once admitted it is rarely considered desirable to pass them out. It will be seen by reference to the accompanying diagram that, whereas each year children are passing from B to A, there is no such passage from C to B.' "

NOTE.—The Mannheim plan is discussed at length in *Bulletin No. 3*, 1907, United States Bureau of Education. The accompanying diagram is reprinted from that Bulletin, p. 122.


Column A.—Regular grades containing more than 90 per cent. of the pupils
Column B.—Grades for temporary aid.
Column C.—Auxiliary grades or special schools.
Column D.—Preparatory classes of high schools.
Regularly promoted.
Placed temporarily in separate classes for individual attention and returned to regular grades.
Placed in separate classes owing to defective mentality.
Id.—Institution for idiots.
G.—Gymnasium.
Rg.—Real Gymnasium.
O.—Oberrealschule.
R.—Reform Gymnasium.
VIII
VII
VII, VIII
VI
VI
G. Rg. O. R.
V
V¹
V²
Bright children preparing for high school.
IV
IV
IV
VI, VII, VIII
III
III
III
IV, V
D
II
II
II, III
I
I
I
Id.
A
B
C

[*From the Report of 1905*]

SPECIAL SCHOOLS

"*Examinations.*—Between 1 and 2 per cent. of the children are so defective in some respect that they may be classed as unfit to benefit properly by instruction in the ordinary school.

"When such a child becomes known, the head teacher, or divisional superintendent if the child is not in school, gives particulars of the case on a form provided for the purpose. This form is then forwarded to the Medical Officer, and medical examinations are arranged at various centers, at each of which not more than twenty cases are presented. The Medical Officer makes a report on each case so examined, and the children are educated in accordance with this report.

"The blind or deaf child is defined as one who is too blind or too deaf to benefit properly by instruction in the ordinary elementary school.

"*Blind.*—There are nine schools for the instruction of children classed as blind. Of these seven are ordinary day classes and two are residential institutions.

"*Deaf.*—There are ten day schools and three residential schools for the deaf. Great harm is undoubtedly done by voluntary institutions for the care and help of the deaf, collecting them together, and separating them from their fellows by encouraging the use of sign language, and, what is worse, in many cases leading to the marriage of congenital deaf mutes.

"*Mentally defective.*—These children are provided for under the Elementary Education (Defective and Epileptic) Act, 1899. There are seventy-nine centers; of these seventy-three are ordinary special schools for day scholars, and four, classes for older boys. There is also one residential school. The mentally defective children are defined as those who, not being imbecile, are yet, by reason of mental (or physical) defect, unfit to benefit properly in the elementary school.

"The Education Acts make no provision for the small class now termed "moral imbeciles."

"*Morally defective.*—Most of these have hitherto passed through the schools unnoticed. They are really not provided for by the Education Acts, as they are quite capable of learning most things in school. Many in later life undoubtedly will become a danger to the community, and where this is associated with other defects which bring them into notice, should not be permitted to be in ordinary schools. Residential institutions or a colony or ship where they can be under constant observation will be the best treatment during school life. They should be registered by the finger-print method, so that in later life on once coming into the hands of the police their dangerous qualities will be known.

"*Epileptics.*—A scheme is under consideration for dealing with epileptics. As yet epileptics are considered first with respect to their mental qualities. Are they fit for the ordinary school, or feeble-minded? Then they are considered with regard to the epilepsy. Can this child attend school, or are the epileptic attacks too frequent for it to be advisable to attend? If so the child is excluded as invalid. The absence of provision for this class is the greatest gap in our educational system."

[*From the Report of 1906*]

"The day schools, both for the blind and deaf, are scattered widely apart all over London, and the distance some of the children from five to thirteen years of age travel is great, yet the attendance is very good. The parents seldom demur; they are generally anxious that the little ones should be under special instruction. The lack of accidents speaks well for the care with which the children are taken to school. The guides, who are often either brothers or sisters, attend the normal school near the school for the blind. The conductors of trams, etc., are found to be kind, and give particular attention to children traveling to special schools. This method of getting about is in itself an education for the children, accustoming them to the habit of crossing the streets, getting in and out of trams, trains, etc., and giving them a wider experience of the ordinary routine of life. Before the children leave the day for the residential schools they have usually reached Standard IV or V in addition to acquiring practice in various forms of manual occupations. Some, however, are very backward on entering the special schools, and it is extremely difficult to classify these cases.

"Arrangements now exist in all the day schools for the blind and deaf whereby the children may have a hot dinner consisting of meat, vegetables, and pudding, for 2*d.* each. Usually this amount is forthcoming from the parents, but assistance is given from the "Referee" Fund where the parents are found to be unable to pay. The provision of a mid-day meal has filled a long-felt want, and a marked difference is already noticeable in the children. Ladies who are interested in the project attend at mid-day and help in the supervision of dinners generally. Thus it has also been the means of bringing new friends to the blind and deaf.

"The removal of the mentally and physically defective blind boys to a residential school has helped to the classification of the day schools.

"Organization of the Deaf Schools of London:

"1. Mixed day schools for children up to thirteen years of age.

"2. Boarding-out facilities for those children whose homes are a considerable distance from the schools.

"3. Semi-residential schools for children between the ages of thirteen and sixteen.

"4. A school for children with combined defects.

"5. Training in the rudiments of trades in addition to ordinary school subjects for those between 13 and 16 years of age.

"6. Evening schools after school age.

"7. After-Care Committee to deal with employment, etc., when they leave school.

"The proper classification of the *mentally deficient* is, through lack of suitable accommodation, still far from ideal, and this must be so until some authority makes provision for the lower class, which is hardly capable of benefiting by instruction in a day school, and requires permanent custodial treatment. They are often retained in the schools, because to exclude throws them upon the streets where they are a constant source of danger to all around them.

"*Mid-day meals.*—On account of the comparatively long distances which children often have to travel to attend a special school for the blind and the deaf, and of the delicate state of health of many of the children, the provision of a mid-day meal is a necessary adjunct of the work of the school. It is generally found that there is a considerable improvement in the physique of those children for whom a suitable dinner is provided. The dinners in the day schools for the blind and the deaf, like those in the schools for the physically defective, are under the supervision of a committee of representative managers, and the Council provides all the facilities, the parents, when able, paying 2*d.* per meal to cover the cost of food.

SPECIAL SCHOOL FOR	NO. OF TEACHERS		AVERAGE NO. ON ROLL		AVERAGE NO. OF CHILDREN ON ROLL TO EACH TEACHER	
	1905	1906	1905	1906	1905	1906
Blind	28	29	271	273	9.7	9.6
Deaf	71	81	576	619	8.1	7.6
Mentally defective	210	226	4,050	4,746	19.3	21
Physically defective	47	66	962	1,565	20.5	23.5
All schools	356	402	5,859	7,203	16.5	17.9

"In addition to teachers there were 169 helpers, bathers, etc., engaged in the special schools in 1906, as compared with 103 in 1905."

[*From the Report of 1907*]

"*Special school.*—There is no fresh departure to chronicle in connection with the special schools.

"*Physically defective children.*—There are now 23 invalid schools with approximately 1,802 children on the roll; 35 ambulance carriages and 11 omnibuses take these children daily to and from school, and 24 nurses attend to their conveyance and care in school."

BERLIN'S NEW SCHOOL IDEA

AN OPEN-AIR PAVILION IN A SPLENDID GROVE—THERE CHILDREN WITH HEART OR LUNG SYMPTOMS COMBINE INSTRUCTION WITH HEALTH-SEEKING

[From the *Nuova Antologia.* Reprinted in the *Boston Transcript*, March 28, 1908]

Charlottenburg, in the neighborhood of Berlin, was the first city in Germany, perhaps the first in Europe, to take definite action in behalf of physically deficient children. This action resulted about three years ago in the establishment of an open-air school in a magnificent suburban forest known as the Grünewald. The medical supervision of the pupils is in the hands of the regular inspectors of the public schools, and to their superintendent, Dr. H. Neufert, the credit of the idea is due.

The approach to the school is through a wooded path, which branches off from the highroad to Spandau opposite Ruhwald Castle, near the terminus of the electric railway. A few minutes' walk brings the visitor out into a clearing in the midst of a thick grove of tall firs. . . . . A wide gateway hung with festoons of ivy, over which float the colors of Charlottenburg, admits the visitor to the precincts of the school.

The school was first opened in the summer of nineteen hundred and four. The New West End Society, to whom this part of the forest belonged, gave the city the use of it, rent free, for a term of years, and the Women's Patriotic Alliance, an admirable charitable association of Berlin, promptly offered to assume the domestic management of the enterprise, the running expenses being met by the city. The Alliance also put at the disposal of the city a good-sized barrack of the Docker type, furnished with everything needed for the kitchen. This made it possible, with comparatively limited means, to enroll ninety-five children of both sexes.

At the end of six weeks the number had increased to 120. The children who attend the school are chosen by the medical examiners of the city schools. The preference is generally given to those showing signs of heart or lung affections, to anaemic and debilitated children; to children who, although not ill enough to be confined to their beds, are not able to bear the strain of study under ordinary conditions; and to convalescents. On the grounds of the school, which comprise about two and a half acres enclosed by a high fence of wire netting, are a large school-barrack, built of wood and tarred pasteboard, another barrack serving as kitchen, a roomy lavatory, a bathhouse with showers, and a big wooden shed open on one side and covered by a wide overhanging roof, under which the children take shelter when it rains. Everything is planned in accordance with the most modern theories of pedagogy and medicine.

The food is of the best and is very inexpensive. In the morning, about a quarter after seven, when the pupils arrive at the school from the electric cars, breakfast is served. This meal consists of a glass of milk with bread and butter. At noon, for their dinner, they are given plenty of vegetables and about a quarter of a pound of meat apiece. At four they have another glass of milk with bread and marmalade, and at seven in the evening, before they leave for home, they are served with hot soup and bread and butter. The cost of all this does not exceed twelve cents a day for each child. As has been said, the expense is met by the city.

Dr. Neufert reports that it is hard to realize what a great change takes place in the health of the children after a few weeks' attendance at the Forest School. The results are extraordinary, though obtained by the simplest and most natural hygienic and pedagogical methods. A continued sojourn in the fresh, pure air in all kinds of weather, the sunshine, the baths, the abundant and substantial food, the limited hours of study, rationally arranged, put new life into the little invalids. The visitor is filled with wonder upon hearing that during three months of out-door life in the forest, even in October and November, the children keep well, not so much as taking cold. Their increase in weight also is remarkable, the average gain being about seven pounds. Some gain as much as ten or twelve; some even sixteen or eighteen. The little pupils enter the school sickly and inattentive in their classes. They leave it well and strong, and so far advanced in their lessons as to be able at once to enter the ordinary grades of the Charlottenburg schools. A further benefit resulting from an institution of this sort is the affectionate intimacy which springs up between teacher and pupil. In the year 1905 the expense to the city of the Forest School amounted to about $5,576.

Within a few weeks London will also have its Forest School, patterned after the Charlottenburg example. The municipal authorities, during their recent tour of investigation in Germany, had occasion to visit the Charlottenburg institution and came back so enthusiastic that they at once resolved to establish a similar one in their own city. The Royal Arsenal Co-operative Society, which owns a magnificent forest southwest of London, forthwith offered a part of it for the open-air school. The generous offer was accepted, and it is now only a question of days until the metropolis can provide accommodations for a hundred children chosen from among the most sickly and debilitated of the wretched southwest section. These children will receive not only food and tuition, but clothing, too, free of expense.

ABNORMAL CHILDREN

FREDERIC E. FARRINGTON, PROFESSOR OF EDUCATION, UNIVERSITY OF CALIFORNIA
BERKELEY, CAL.

"In submitting the following brief notes in answer to your letter of January 7th last, and the accompanying outline, (1) I have taken the liberty of including also some information as to the state of affairs in Belgium. Some weeks ago, I was in Lille on a tour of inspection connected with my own investigations on the secondary school system of France and inasmuch as Brussels is only a couple of hours' ride and I had understood that they were doing a good deal in that city in the care of some of the classes of children covered by your investigations, I thought it worth while to run up there. I felt amply repaid for my trouble, as I trust you will see later. Furthermore, I am adding some material on the situation in Holland, obtained from Rouma, *L'Etat de l'enseignement spécial pour enfants arriérés aux Pays-Bas* (1906).

"2) Permit me to call your attention to the extensive bibliography of books and pamphlets exhibited at the Kongress der Hilfschulen at Bremen in 1905. These are chiefly in German, and at that time, I believe, covered the ground very completely so far as Germany was concerned.

"3) In France, where education is under state control and largely at state expense, nothing of a general nature has been undertaken. It is worth noting, too, that in the Low Countries, where so much has been done, it has all been undertaken at local initiative. Consequently all these various situations hereinafter described are only limited movements supported rather at municipal or private expense or sometimes with the co-operation of both. They are naturally confined to the important towns and cities.

"4) For your own convenience I have attempted to follow the outline you sent out although the classification abroad does not correspond with your own. The greater part of these notes will bear upon the intellectually exceptional, and under this head upon the exceptionally dull, for I have thus far failed to find any provision or even mention in this connection of the exceptionally capable.

A. MORALLY EXCEPTIONAL

"1. *Truants.*—Since 1882 there has been a compulsory school law in France, requiring school attendance from six to thirteen years of age unless the child is otherwise educated. To satisfy themselves of the efficacy of this instruction outside the school, the authorities may require an annual examination. In case of deficiency here, the parent may be required to send his child to a public or a private school. This upper limit of thirteen years of age may be cut down one and sometimes two years, for a child that has gained the leaving certificate is exempt from the operation of the attendance law. This certificate is granted on passing an examination based upon the work of the second third of the primary school course. (For further details as to the organization of this primary system, see my *Public Primary School System of France.*) The efforts made to raise the level of this examination have thus far proved unavailing.

"Every fall just before the opening of the school year, the mayor of the commune sends to the principals of all public and private schools a list of all the pupils that ought to be at the various schools. In accordance with this information, the principals send to the mayor of the commune and to the school inspector a list of all absences for the month with the causes therefor. The mayor, as president of the local school commission, is then responsible for instituting proceedings against the parents of children that are not at school. If a child is absent for four or more half days in one month without satisfactory excuse (the only ones ordinarily valid are (1) sickness of the child; (2) death in the family; (3) suddenly interrupted means of communication), the mayor summons the parent to appear before the school commission and explains to him his duty. Upon a repetition of the offense within the year, the school commission orders the parent's name posted on the bulletin board of the town hall. If this still has no effect the commission brings the matter before the district judge, and the latter has power to punish the offender. This is ordinarily done by inflicting a merely nominal fine of a few francs. Inasmuch as the mayor is a political office holder (elected by the members of the municipal council who are in turn elected by popular vote), it may readily be inferred that he often hesitates to incur the enmity of the electors and that these processes are less frequent than they should be. These school commissions are reasonably efficient in the larger cities, though even there occasionally one finds in the report that the commission is "not acting." There is a growing feeling that the complaint in truancy cases should originate with the primary inspector, an official outside the pale of political influence, but as yet no great progress has been made toward effecting this change. Nevertheless, the school attendance is undoubtedly better than it is with us. Unfortunately the French school statistics do not give average attendance. The nearest approximation we can get, therefore, is the enrollment for December and June, the months of the highest and the lowest respectively, together with the actual attendance on the second day of each of these months. Barring unusual conditions this will give a general notion of average attendance. The figures for December, 1901, and June, 1902, the date of the last quinquennial report, give us 3,656,561 and 3,578,586 as the enrollment for the month, and the number present on the second day of those months as 3,311,826 and 3,128,047 respectively. This gives us an attendance of 90 per cent. and 87 per cent. on the enrollment for these months.

SCHOOL KITCHEN IN THE CHIEF CITIES OF FRANCE[1]

Cities	Population 1901	Amount expended 1901–02	Number of meals served	Number of free meals	Number of schools served	Remarks
Paris	2,657,335	1,469,018	9,108,463	5,561,903		In 19 of the 20 arrondissements.
Marseilles ...	491,161	84,000			70	All free.
Lyon........	459,099				84	Free to poor.
Bordeaux ...	256,638				60	
Lille	210,696	206,000	1,201,349			All quarters of city served 6,200 children daily.
Toulouse....	149,841					Free to poor.
Saint-Etienne	146,599	45,782	136,000	55,000	14	
Roubaix	142,365	118,905			27	
Nantes	132,990					No regular city organization. Private society spends 10,000 francs per year.
Le Havre....	130,196				27	903 out of 1,587 are paying pupils.
Rouen	116,316		169,198	128,879	28	
Reims.......	108,385	27,700				
Nice	105,109				4	
Nancy.......	102,559					No school kitchen.
Toulon	101,602				30	Every school served.
Total except Paris....	2,653,516					

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[1] *Statistique de l'enseignement primaire, 1901–1902.* I have compiled this table from the various individual reports. The lack of uniformity in the returns of the reporting officers is responsible for the fragmentary appearance.

"Poverty is a large factor in truancy. The encouragement of school attendance is put into the hands of a kind of local board (*commission scolaire*). This body, partly elective and partly appointive, however, exercises no control over the school or its work; its influence outside the above-mentioned duty is purely moral. Its most effective agents are the school fund (drawn upon for the purchase of shoes, clothing, and school supplies) and the school kitchen, both provided by municipal or private subscriptions. There are no general statistics available for showing the importance of this work, but table on p. 36 will indicate the prevalence of the school kitchen in Paris and in the fourteen other cities of 100,000 inhabitants and over. Every one of these cities except Nancy has its school kitchen where a good, wholesome repast may be obtained at a merely nominal cost. The poor are provided gratuitously.

"These school kitchens are open chiefly during the winter months. The meals (the regular mid-day meal) consist of soup, meat, vegetable, bread, and wine, though in most places the pupils bring their own bread and wine. The cost per meal per pupil in the primary schools varies from 10 to 20 centimes, about two to four cents. (In Saint-Etienne it reaches as much as 40 centimes for the higher primary, and the commercial and industrial schools.)

"So far as my information goes, there are no so-called truant schools. Truants are reached either through the parents by the ordinary legal methods or not at all.

"2. *Exceptionally dull.*—This whole question is being discussed very seriously in France just now, but it is not very widespread and little has been actually accomplished in or in connection with the public schools. These mentally or intellectually abnormal children have been very carefully classified by Dr. Philippe and Dr. Boncour in *Les anomalies mentales chez les écoliers* (1907), ranging from absolute idiots through imbeciles and feeble-minded to the intellectually or mentally normal.

"The greater part of these, it goes without saying, are quite apart from the point in question. But somewhere above the feeble-minded we begin to find classes of children that we are likely to encounter in our schools; in other words, children that can profit to a greater or less extent by the instruction that is given them.

"*a*) These begin with the intellectually or mentally backward children 'whose intellectual powers, taken as a whole, are all present, but which are manifestly inferior to those of an ordinary child of the same age.'

"*b*) The mentally unstable is one who cannot be depended upon to give any sustained attention for listening, for answering, or for understanding. He is often blamed for inattention or for poor work, when the difficulty is something beyond his ordinary control.

"*c*) The asthenic children who are suffering from a lack of vital energy are often accused of laziness when the real cause is due to inactivity of psychic function which they are not able to overcome. Such present all the signs of nervous fatigue, but it is not due so much to effort actually exerted as to congenital incapacity quite anterior to this effort.

"*d*) The epileptic.

"*e*) The hysterical child.

"*f*) The subnormal child. The preceding types are relatively easy to distinguish, but here we come across a type that is intermediate between the abnormal and the normal. These are the children that may easily be turned one way or the other; the 'bundle of nerves' children whom care can restore to health or neglect can easily render permanently 'unstable;' those in whom hysterical tendencies are but just appearing; in whom the asthenia is superficial rather than deep-rooted. Here, too, belong the children afflicted with adenoids.

"The pedagogically backward child is an entirely different type. He is in no sense of the word mentally abnormal; his backwardness is purely a question of grading and not of the intellect; his position is due perhaps to lateness in entering school, perhaps to irregular attendance on account of illness, or truancy, perhaps to chronic and consistent laziness from which his teachers have failed to arouse him, perhaps to inability in knowing how to study or to apply himself. The reasons for this backwardness are well-nigh legion.

"In Paris the idiots and imbeciles, properly speaking, are confined in hospitals or asylums supported by the state, the department, or the city, at Bicêtre, Salpêtrière, Vaucluse, etc.

"For the feeble-minded and the mentally abnormal children there are special classes in private institutions, notably those of Dr. Bourneville, Dr. Langlois, and Dr. Berillon, all in the suburbs of the city. On account of the private character of these schools and consequent expense connected therewith, they are available only for children whose parents are at least comfortably well-to-do.

"For these latter types of children, there are a few classes in public schools, but the movement has as yet made little progress.

"The financial question seems to present the chief obstacle. According to M. Bêdorez, director of primary education for the Department of the Seine (i. e., practically Paris), 'If we establish schools of this class we cannot multiply them so as to have them in every quarter. At the most we can have only one per arrondissement (there are twenty arrondissements in Paris), and then who would bring the children? Would you require the parents to bring them and come for them? Would you leave them to find their way alone? In either case would you not increase the repugnance which the parents always have at seeing their children segregated?'[1]

"At Lyon and Bordeaux special classes have been organized, but I have been able to obtain no details of their results.

"At Lille, M. Minet, the primary inspector in charge of the city schools, is making an effort to do something with the so-called abnormals. When I saw him last month he had only little more than begun. Out of 15,000 pupils in the public primary schools of that city, he had only seventeen boys and twenty-one girls that came in that category. He had asked the teachers to ascertain whether or not the parents would consent to have their children put in special classes. The replies that he read me were all favorable. The difficulty here as at Paris is chiefly a question of money.

"These isolated examples, however, tend to indicate that there is no very general discussion of this question except among the specialists nor any very widespread movement to establish such schools.

OTHER ABNORMAL CHILDREN IN PARIS

"1. The blind are sent to a special institution—Ecole Braille. There is no provision for ordinary weak-sighted children. The theory of eye-strain is still looked upon as an oculists' fad. So far as my experience in French schoolrooms is concerned (I have probably visited more than two hundred), I have never found a teacher that appeared to give the question a thought, and the light supply is almost invariably inadequate.

"2. The deaf and dumb are received in a special institution at Ansières.

"3. The idiots, paralytics, and epileptics are cared for in the hospitals at Bicêtre and Vaucluse for the boys, at Bicêtre and Salpêtrière for the girls.

"4. The crippled, lame, hump-backed, etc., are found in the ordinary public primary schools. Their infirmity is certainly an inconvenience, but if they are endowed with normal intelligence, they can probably follow the regular class work.

BRUSSELS

"In order to show you the conditions at Brussels and the way of handling the situation there I am going to give you the result of an interview that I had with Mr. Arthur Nyns, the principal of one of the public primary schools of that city.

"About ten years ago the city established a school for backward children. At the present time it has 210 children in eleven classes. Not long after its foundation the Flemish part of the population began calling it 'L'école des fous' (lunatic school), and as most parents objected to sending heir children to an institution that bore this stigma, the school has never been very successful from the public point of view. Nevertheless professionally speaking, its principal, Dr. Demoor, has accomplished a great work for these unfortunate children.

"Profiting by this experience (and it seems to me we can also learn wisdom from the experiment), Mr. Nyns in his own school started out on a different tack. Every child who comes to his school is assumed to be normal. Whatever opinion Mr. Nyns may have, he says nothing to his teacher. Before long, the teacher begins to notice things for himself. After three months the teacher reports that a certain child cannot learn.

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[1] Laurent, *La criminalité infantile*, pp. 147, 148. See the way this last objection is met in Brussels.

" 'Try again,' says the principal.

"After three months more the teacher reports again that the child cannot learn There is then a medical examination conducted by the principal and Dr. Decroly (a medical specialist for such diseases; he is paid by the city and has the same duties at one other public school). This examination is exhaustive, concerning sight, hearing, smell, nervous system, throat (for adenoids), heart, lungs, etc.

"The principal examines the child from the intellectual point of view, using Binet's tests (a series of tests specially compiled by M. Binet, professor of psychology at the University of Paris). These give remarkably accurate information. Incidentally the principal sends for the parents and inquires exhaustively into the heredity of the child. The child is then put into one of the classes for backward children. These backward children fall into two general categories:

"1. The pedagogically backward, i. e., those that for one reason or another are three years behind their normal grade for children of their age.

"2. The mentally backward, i. e., those that are really mentally deficient.

"There are two classes for the former and four for the latter. The equipment of the school does not allow more. If the pedagogically deficient have not been able to catch up (they are rarely able to do so) during these two years, they are put in with the mentally backward. The ordinary pedagogically backward children, i. e., those less than three years behind the normal grade, are carried along at the regular rate. The Brussels schools are organized in four degrees with two classes or grades in each. The fourth degree corresponds roughly with the first two years of our English high schools, so that the primary (or according to our nomenclature, the primary and grammar) work is covered in a six-year course.

"The pedagogically backward classes are confined to the first and second grades; the mentally backward to the first four grades, in other words covering two-thirds of the regular elementary-school course. These mentally backward children, then, can never go beyond the fourth grade, and not all of them can get even to that point.

PUBLIC SCHOOL NO 7, BRUSSELS

	Total in School	Pedagogically Backward	Mentally Backward
Number pupils	1100	90	120
Number classes	27	2	4

"This gives 45 children in each of the pedagogically backward classes, and 30 in each of the mentally backward classes. The latter number is at least twice too large, but they are doing the best they can.

"This gives a very large proportion of 'backward'—nearly 20 per cent. Other figures for Belgium run from 12½ per cent. to 18 per cent. Among the children who do not come to school, the proportion would probably be still greater.

"In Antwerp and Ghent, the only other cities in Belgium where these special classes are found, they are likewise supported at municipal expense. In Brussels the program in the backward classes is exactly the same as in the regular classes, the teacher accomplishing as much of it as possible. A very important point about the administration of these classes is that there is no special designation for the class; the parents do not know that their children are in such classes. The principal and teachers are the only ones that know which are the classes in question, and they are under strict instructions not to make it known. The result is that the opprobrium connected with the 'Ecole des fous' above referred to has been entirely avoided. This is practically necessary, for the educational authorities are afraid to have the question openly discussed.

"The following table gives the figures up to March 27, 1908, for the schools of Brussels, Antwerp, and Ghent:

School	Classes	Pupils
Boys—		
School No. 7 (Mr. Nyns's, above)	6	210
School No. 10	3	91
School No. 14 (so-called Ecole des fous)	11	210
School No. 18	2	67
Total	22	578
Girls—		
School No. 3	5	95
School No. 8	3	52
School No. 16	5	66
Total	13	213
Brussels Schools	35	797
Antwerp Schools	8	126
Ghent Schools	3	60

"I have thought it worth while to add an adaptation from Rouma, *L'Etat de l'enseignement spécial pour enfants arriérés aux Pays-Bas*, on the situation in The Hague.

SPECIAL INSTRUCTION FOR BACKWARD CHILDREN AT THE HAGUE[1]

A.—*Historical*

"In 1902 the municipal authorities established an experimental class in connection with an ordinary school. It was placed under the direction of Mr. Schreuder, a man who had already had some experience of a similar nature.

"The results were so satisfactory that in 1903 the authorities established a second class, and in 1904 two new classes were added to those already in existence. A special building was fitted up, and the four classes were transferred there, thus forming a separate school.

"Each year another class will be added until there are six graded classes and an observation class.

"At Scheveningen there is also a class which forms a part of the school at The Hague. A second class will shortly be established there.

B.—*Pupils. Recruitment*

"Every year the municipal authorities send the directors of the primary schools a notice inviting them to send the abnormal children enrolled with them up for a medico-pedagogical examination.

"The school directors that have any such abnormal children first send for the parents in order to explain the situation and to show them the advantages to be gained by transferring their children to the special school. After the parents have authorized the medical examination of their children, the school director fills out the accompanying blank and sends it with the child to the director of the school for the backward children.

COMMUNE OF THE HAGUE

Instruction of backward children—Questionnaire

Information about ____________________

____________________, born the __________, at __________

Address ____________________

School ____________________

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[1] Chiefly a translation from Georges Rouma, *L'Etat de l'enseignement spécial pour enfants arriérés aux Pays-Bas* (1906).

Name of father:
Business of father:
Ranked the in the class (degree, year)
Since in the class.
Former schools attended:
Is the child troublesome or well behaved?
Is it difficult to attract and to hold his attention?
Is he passionate or impulsive?
What is the general character?
Has he any moral defects?
How much does he know of arithmetic?
What reading book is he using?
Can he learn to recite from memory a four line stanza?
Can he learn a tune by hearing it?
How does he behave himself during free hand drawing?
Does he recognize common objects from drawings?
Has he any difficulty of speech?
How is his personal cleanliness?
How are his bowels? Is he compelled to urinate frequently?
Has he any vicious habits?
Is he regular in attendance?
Have you any particular information concerning his family?
Further information that might throw light upon the child:

(Signature of the school principal)

The examination is conducted by a physician (a specialist) and by the director of the special school. They follow the accompanying blank:

COMMUNE OF THE HAGUE

Instruction of backward children—Examination

Name
Born the at
Address
Religion

I. *Heredity and antecedents:*
1. Father (name, age, birth-place, occupation)
2. Mother (name, age, birth-place, occupation)
3. Information about the parents (sickness, use of alcohol, poverty, misdeeds)
4. Similar information about the relations in direct line.
5. Similar information about the relations in collateral line.
6. Number of brothers and sisters living?
7. Number of brothers and sisters dead? Cause of death in each case?
8. What is the place of this child in the family?
9. State of the mother's health during pregnancy?
10. Birth
11. First years:
    a) Teeth
    b) Walking
    c) Talking
    b) At what age did he begin to be clean about his person?
    e) Sicknesses.

II. *Present conditions:*

12. General impression

13. Physical condition:

Height

Eyes

Movements of the eyes

Position of the ears

Head

Face

Nose

Mouth, and lips

Palate

Teeth

14. Mental condition:

a) Sight (colors)

b) Hearing (music)

c) Muscular sensations:

Can he stretch his hands out in front of him and hold them still?

Can he stand still with his feet together?

Can he keep his eyes closed?

Can he walk forward and backward with his eyes closed?

Can he put a key in the lock?

Can he cut along a line?

III. *Representations and ideas:*

15. Representations of form

16. Representations of volume

17. Representations of number

18. Representations of time

19. Ideas of the value of money

20. Ideas of family relations

Association and reproduction

21. Illusion of weight

22. Tell something that happened

23. Arithmetic

24. Reading

25. Copying

26. Dictation

27. Draw a given figure from memory

28. Memory (visual, auditory, motor)

29. Association of ideas

30. Imagination

IV. *Sentimental life:*

31. Does he have fits of temper?

32. Disposition

Is he easily aroused?

Is he stubborn?

Is he timid?

33. Does he love his family and his comrades?

34. Does he like animals and little children?

35. What is his idea of duty?

36. What is his idea of repentance?

37. Sexual sensations?
38. How is he during sleep?
39. Can he dress and undress himself?
40. Can he go on an errand?
41. Has he any difficulty of speech?
42. What is the opinion of the parents about their child?

"Not all the children thus examined are admitted to the school. Idiots and serious cases that give little promise of being benefited by the school are rejected and sent away to an institution for idiots.

"From those that are left, those are selected who are most likely to profit by the special education enough to take care of themselves when forced to make their own way in the world. The choice is made without any regard to sex. At the most, sixteen children are selected to form the new class. If vacancies occur during the course of the year new applicants may be admitted, but the maximum number, sixteen per class, is never exceeded. The children that are admitted to the special school are kept under careful observation for the first six months. During this period, the teacher may propose that the children return to the ordinary schools if he judges them too little afflicted to be restricted to the special instruction found in his school.

"No children are admitted to the special school unless they have spent at least one year in an ordinary school. The number of abnormal children in the schools of The Hague is estimated at about 200.

C.—*Instruction.*

"*General considerations.*—The special school at The Hague at the present time (i.e., 1906) is composed of four classes, each one of sixteen children (a dozen boys and five or six girls).

"The two lowest classes, formed in 1904, are parallel. The class I*a* is composed of apathetic and lazy children, slow of mind, who must be constantly spurred on to work. The class I*b* is composed of excitable, unruly children, those who must be constantly restrained and whose surplus activity must be allowed to flow off in other channels than are ordinarily afforded by school work.

"The program of work is arranged by the director in co-operation with the teachers. It is essentially variable, and it depends upon the needs of the children. Much attention is given to the gifts and occupations of Froebel and to manual work in general, to drawing, practical arithmetic, language work, and to physical training. (See the program for the numerous lessons of gymnastics and the three recreations per day with a relatively small number of hours of class work.)

"The time table, which is reproduced below, is arranged so as to permit a free interchange of pupils in certain subjects, especially in arithmetic and reading. It helps those children who are very much behind or those who are very much ahead. This latter case is the more rare, although the director cited the instance of a child in class II who had his reading with the pupils in Class III. The opportunity of having part work in the higher class seemed to spur him on to greater efforts and two months later he also had his arithmetic with the pupils of Class III. He was finally promoted in every subject, and he was able to keep up with the work. This system has the further advantage of avoiding all "doubling." All the pupils must be promoted. They are never kept back except for those subjects in which they are behind. In general they are stimulated by pride, and they accomplish wonders.

"Each teacher keeps his pupils thruout the entire course of their instruction, which lasts for eight years. It is easy to see what a wonderful influence the teacher can have over his pupils under these conditions, and the question of discipline is thus easily solved.

"His perfect knowledge of the character of his children gives the teacher a great moral influence over them. On the other hand, he is able to come into very close relations with the parents of his pupils and to exercise over them also a good influence which continues thruout the school life of their children.

"(From the text, it is evident that all the work is very closely correlated.)

"Each class has a class notebook. A certain number of pages are reserved for each child, and here is also transcribed the information furnished by the two questionnaires above referred to. The teacher enters daily notes on the character, the moral tendencies, and the intellectual condition of each pupil.

D.—

"*Baths.*—On the authorization of their parents, the children are taken for a shower bath once a week. These baths are paid for by a charitable society. Six or seven of the upper class children take advantage of these free baths.

"*School kitchen.*—Every day in winter, the poor children receive a mid-day meal consisting of soup, vegetables, potatoes, and meat. About 25 per cent. of the children share in this, a work supported by a private organization.

"Shoes and clothing are likewise distributed by charitable societies.

"*Fresh-air society* (Colonie scolaire).—A society has been formed to collect money in order to send the backward children to the sea shore for from three to five weeks. In 1904, the first group of eight children was sent to a children's boarding-house on the Zuyder Zee for three weeks. The results of this first colony were so satisfactory that an active propaganda has since been carried on in order to permit a still greater number of children to enjoy the benefits of the school colony and to spend a longer time at the sea shore.

"This same society is also interested in the distribution of milk to poorly nourished children.

"*Placing children when they leave school.*—When the first group of children finishes the course (this will occur in 1908), it is proposed to give each child a godfather, who will follow him and guide him through life. The godfathers are to be chosen from the members of the Fresh-Air Society.

E.—*Teaching Force*

"The personnel of this special school is chosen from the regular teaching force. In order to be eligible for this appointment, the teacher (it is evidently a man) must hold the principal's certificate, awarded on examination after two years of actual teaching. He must know how to draw, and sing, and be competent to give instruction in manual training.

"The preference is furthermore given to those that know the foreign languages. The teachers are first appointed on trial for five months. If successful, they receive an additional salary of 200 gulden (about $80.00) per year. There is a definite attempt being made to establish a special course for the training of these teachers.

"Every two weeks the director holds a teachers' meeting to discuss modifications in the school program.

"The teachers also form a Study Club in two sections of three members each. Their object is the study and discussion of books, pamphlets, etc., in regard to special education of this kind.

"*Doctor.*—The duty of the physician does not go beyond the medical examination of the children. He takes no part in the instruction, and he receives no salary.

"Saturday afternoon and Wednesday afternoon are half holidays."

DISCUSSION

E. R. JOHNSTONE, Vineland, N. J.—The most encouraging thing to us who are engaged in the work of training mentally deficient children, is the report of this committee. Teachers and superintendents do not realize the extent of the problem involved in the discovery, treatment and training of the "Special" Child.

It has been suggested that there are a large number of children in the public schools who really should be in institutions. The reason they are not there is largely because of this lack of knowledge on the part of public school men and women. We who have studied the problem have agreed to the statement that one in every five hundred of the population is actually feeble-minded, and know that we are making a conservative statement. This report states that one in ten of the school children needs a specialist's attention. The chairman has stated that 2 per cent. are feeble-minded. It has been my good fortune to visit a great many of the special classes in this country, and, without exception, I have found a large number of feeble-minded children who were supposed to be merely backward, but the full extent of their defect is not recognized. The advisable thing is for this committee to go right on with its investigations with a larger appropriation. I would suggest that special inquiry as to the number of these children be made first of all.

Co-operation on the part of the physician and teacher is greatly needed. Altho special classes have been in existence in Europe for many years, they are accomplishing but little and working at cross-purposes because the physician and teacher do not work in harmony. The outlook in our own country is better, but close co-operation of these two, which will lead to study and work by the physchologist, is necessary. Up until the present, the medical inspector, excepting those who are doing unusually good work, has confined himself to looking for contagious diseases, filth, etc. And many are not sufficiently versed to recognize mental deficiency and remediable defects.

The need of teachers in this "special" work is great indeed, and I would urge upon those of you who are in charge of Normal schools to have lectures given touching upon the cause, diagnosis, and prognosis of mental deficiency. The public institution must be a laboratory for public-school classes, for careful studies of abnormal children will undoubtedly lead to radical changes in the course of study, at least for primary children. The National Association for the Study of the Feeble-minded, which met last week, passed an almost unanimous resolution to the effect that superintendents would receive public school teachers into their institutions for a period of one year and give them the best training possible with the idea of fitting them for work in the special classes.

The one important thing in all of this discussion however is that the normal child is suffering. Whenever a subnormal child is found in the regular classes there is no doubt whatever that the teacher of a class of forty children gives much more than one-fortieth of her time to the backward child, to the great disadvantage of the other thirty-nine, and without particularly helping the one. If the parents of the normal children realized the great loss to their children, due to the presence of the backward child, they would be the first to object.

REPORT OF THE COMMITTEE ON INDUSTRIAL EDUCATION IN SCHOOLS FOR RURAL COMMUNITIES

To the National Council of Education of the National Education Association:

The undersigned Committee on Industrial Education in Schools for Rural Communities, appointed by the President of the National Council of Education, by direction of the Council, July 11, 1907, has the honor to submit the following report on the subject assigned for its consideration.

HISTORICAL STATEMENT

This committee, as originally constituted by action of the Council in 1903, consisted of five members. The first report was submitted in 1905. This report was published in pamphlet form as one of the special committee reports of the National Educational Association. A second report was submitted at the Los Angeles meeting in 1907, and was published in the volume of *Proceedings* of the Association for that year.

In presenting this report of progress of the committee in its investigations, the chairman recommended that a new committee be appointed to continue investigations on this subject and report to the Council from time to time.

The Council Committee on Investigations and Appropriations reported the following recommendation to the Council, July 11, 1907:

> That the sum of five hundred dollars ($500.00), or so much thereof as may be necessary, be appropriated for the use of the Committee on Industrial Education for Rural Schools, and that the present committee of five be reduced to three, to be appointed by the President of the Council.

The recommendation was adopted by the Council and the appropriation was made by action of the Board of Directors of the National Education Association, July 12, 1907. The present committee was subsequently appointed by the President of the Council.

The first report, made by the committee in 1905, presented an argument for industrial education as a distinct feature of work in schools adapted to the needs of rural communities, and set forth the scope and character of the work adapted to the needs of these communities. It considered two types of elementary schools: First, the one-teacher district school; second, the consolidated district school carrying no high-school work.

Of the secondary schools adapted to rural communities, four types were considered: First, the consolidated school offering one or more years of high-school work; second, the rural high school of the county, township, or smaller district type; third, the village high school with a large percentage of attendance from the country; fourth, the agricultural high school, distinctively industrial in type, but not eliminating entirely the academic phases of instruction.

The report set forth the conditions under which these classes of schools were then being administered, and undertook to indicate the possibilities in the way of industrial education in each of them and the conditions under which these possibilities might be realized. A scheme of nature-study for the first five years of school work, and an outline of a course in agriculture for the sixth, seventh, and eighth years were given, and the problem of how to make a place for industrial education in existing rural schools was discussed. An argument was presented, designed to show the importance of secondary schools of agriculture and domestic economy, in presenting more advanced lines of work than can be given in the elementary schools, in setting standards for the aid of the elementary schools, and in organizing the requisite body of knowledge for instructional purposes.

The most important agencies co-operating with the rural schools in the field of industrial education were named, and the character of their activities was outlined. The preparation of teachers of industrial subjects in the various types of rural schools was considered, showing the present lack of preparation for this work on the part of the great body of teachers in these schools, the lack of means for giving the needed special preparation, and the agencies through which it might be secured.

Four courses of study were given:

1. That of the Dunn County School of Agriculture and Domestic Economy in Wisconsin, setting forth what may be regarded as a typical course of study for the county school of agriculture, secondary in type.

2. The course of study as administered in the agricultural high school connected with the Minnesota College of Agriculture and representing a type of state schools of agriculture of the secondary class.

3. An articulated industrial course arranged for consolidated rural schools, agricultural high schools, and agricultural colleges.

4. The syllabus of the elementary course in agriculture issued by the United States Department of Agriculture.

Twelve conclusions of the committee were incorporated in the report. These conclusions are here given.

CONCLUSIONS OF THE COMMITTEE

The general conclusions reached by the committee may be summed up as follows:

First, that in existing one-room district schools a limited amount of nature-study and work in the elements of agriculture, and handwork for both boys and girls may be undertaken; that in view of the quality of the teaching force available for these schools, the immaturity of the greater number of the pupils, the crowded condition of the program, and the lack of adequate supervision, but little can be expected in the way of industrial education in this class of schools; but where enthusiastic teachers qualified for the work, and pupils of sufficient maturity are brought together in the same school, something worth while may be accomplished, and that the effort for such accomplishment should certainly be made.

Second, that in the consolidated school having at least four teachers, one of whom is prepared to teach the elements of agriculture and manual training, and another domestic science, very much more in the field of industrial education may be attempted than in the one-room school, and with far better results. The committee believes this to be true, because in such schools teachers may be secured with far better qualifications than are possessed by most of the teachers in the one-room schools, and because in many cases pupils will remain for one or more years after completing the elementary school course, during which time the work in industrial education may be continued. In the consolidated school district, in most cases, new buildings must be erected. At small expense rooms may be provided for manual training and domestic science work, and a plot of land as a part of the school grounds set apart for illustrative and experimental work in agriculture. While the committee does not wish to enter into any argument in favor of consolidated schools for other reasons than for the facilities they may afford for industrial education, it wishes to indorse most heartily that portion of the report of the Committee of Twelve on Rural Schools concerning the advantages of the consolidated school.

Third, that in the township or other distinctively rural high school, and in the village high school attended by a considerable number of pupils from the country, a modification of courses of study should be made which shall provide for the introduction of work, especially in the elements of agriculture and domestic science, and such further lines of industrial education as local conditions may make feasible. To make this work a success, teachers must be secured who have made special preparation for it. For such schools a textbook treating botany from an agricultural and economic standpoint is greatly needed.

Fourth, that while the agricultural or industrial high school is found in but few localities, the character of the work already done in the existing schools of this class, the interest they awaken, and the hearty support they receive from the agricultural communities maintaining them, the history of these schools in foreign countries, the value of their work both for disciplinary and practical purposes, all combine to present the strongest reasons for the organization of schools of this type in large numbers, in agricultural communities. So thoroly is the committee convinced of the importance of industrial education in rural communities and what is essential for making this education effective, that in their opinion the establishment of secondary schools, distinctively industrial in their character and of the type mentioned, is an absolute necessity for the proper development and organization of the rural school system.

Fifth, that the agricultural colleges and experiment stations have already done much in the formulation of a body of knowledge essential in the field of industrial education, but more yet remains to be done in putting this body of knowledge into available form for use in elementary and secondary schools; and that effort in this direction should be made a prominent feature in the work of the agricultural colleges of the country.

Sixth, that the mastery of such parts of this rapidly developing body of knowledge as is within the capabilities of elementary and secondary school pupils furnishes a mental training unsurpassed in extent and quality by the mastery of any other body of knowledge now regarded as essential in our common school courses and requiring an equal amount of time; and that for utility value it is not equalled by any other body of knowledge at present acquired thru the expenditure of the same amount of time and effort.

Seventh, that for the improvement of educational conditions in rural communities, the people in those communities must be educated to see and appreciate the possibilities and value of industrial education; that the value of this kind of education in increasing the productive capacity of those being educated is the argument which appeals most strongly to the rural population. Therefore, in the beginnings of industrial education in any community, immediate, practical results that will appeal directly to the interests of the people who support and maintain the schools must be made prominent by those concerned with its development.

Eighth, that the courses of study in rural schools should be framed with reference to meeting the needs of the children in those communities, and not with reference to preparing a small percentage of these children to enter higher schools whose courses of study are formulated, not to meet the needs of the great majority of those who attend them, but to prepare the remaining small minority to enter some still higher school.

Ninth, that it is possible and desirable so to organize the rural school system as to present an articulated series of schools from the elementary school to and including the agricultural college, in which the work at every stage shall be planned and administered with reference to the needs of the pupils at that stage without the elimination of any valuable feature in the present school system, and without abridging in any way the opportunities for advancement of such pupils as wish to enter other schools of secondary or higher grades.

Tenth, that in industrial education, as in every other form, the success of the work depends upon the quality of the teaching; and that therefore, since effort for industrial education in elementary and secondary schools is comparatively recent and teachers have not prepared themselves in this field, special opportunities and inducements must be offered to the teaching force to make the necessary preparation.

Eleventh, that the organization of boys' and girls' clubs for definite industrial work outside the school, of clubs of farmers and of farmers' wives for the purpose of carrying on systematic reading courses in agriculture and household affairs, should be undertaken thru the co-operative effort of county and state superintendents and agricultural high schools and colleges, for the purpose of arousing a general interest in rural communities in the subject of industrial education. That the Patrons of Husbandry and farmers' institutes are potent forces in creating a demand for the introduction of the industrial phase of education into the rural school system, and that their influence can be made still more effective by the establishment of working relations between their officers and workers and the school authorities.

Twelfth, that when teachers are unprepared to give instruction in the elements of agriculture and other phases of industrial effort, the work is likely to result in failure; that, under existing conditions and under conditions likely to exist for a long time to come, comparatively few teachers in the country schools will be prepared for this work. Therefore, any law making mandatory the teaching of the elements of agriculture, manual training, or domestic science in the entire body of rural schools within a state is unwise, in that the lack of correct information and consequent faulty teaching on the part of the great mass of country school teachers will tend to bring the whole subject into disrepute and cause a reaction which will postpone the proper development of industrial education. But while the committee advises against making mandatory the teaching of these subjects, it advises just as strongly that every effort be made for the proper preparation of country school teachers to begin this instruction, and that every encouragement and inducement be offered those prepared to undertake it, to introduce and carry it on in the schools under their charge.

The second report, made in 1907, was an individual report made by two members of the committee rather than a committee report. This was due to the fact that during the year 1906, in which year no meeting of the Association was held, three members of the committee were called to new fields of work, demanding their full time and energy, and making it impossible for them to devote needed time to the work of the committee.

In this report there was presented a discussion of the general problem of industrial education in rural schools, setting forth the views of Dr. L. H. Bailey, a member of the committee. He also presented a summary of what is being attempted in the way of industrial education in rural communities in various parts of the country, especially in New England, New Jersey, and New York; and the experiences of individual teachers in different parts of the country in different types of schools. The chairman of the committee discussed the problem of the preparation of teachers of industrial work in rural schools.

In 1905 the committee was unable to find that in any of the consolidated rural schools there was anything being accomplished in the way of industrial education worthy of the name. In a few of the rural high schools a limited amount of textbook work in the elements of agriculture had been introduced, as an optional study in most cases, and covering but a few weeks' work. The typical college preparatory course, or a cross-section of it, was the prevailing type in these schools; the teachers were selected with reference to their ability to handle the traditional history, mathematics, language, and science work, rather than for any knowledge of, or interest in, the industrial phases of education appropriate for this class of schools. Such work as was done in agriculture was given as an incidental, permitted because of the growing demand for industrial education, and as interfering least with the traditional courses, while furnishing an excuse for the claim that this new demand was recognized and being met by the school authorities. In those cases where the school authorities recognized the importance of industrial education for the country boy and girl, and were really anxious to make provision for it, they found it impossible to organize and carry on the work with any high degree of efficiency because of the lack of teachers having the proper preparation for it.

Since that report was made, there has been a continued and growing agitation in all parts of the country for the development of industrial education. This agitation and discussion deepened the interest in this subject among the farming population and among the school officials and teachers in rural communities. More schools in these communities are introducing instruction in agriculture. Improvement in the methods and scope of the instruction is slowly being made. Normal schools and other agencies for the training of teachers for carrying on this work are extending and strengthening their courses of instruction in this field, and courses of study in the rural high schools are receiving such modifications as to give a larger place and more time for this work. The gain has been in an extension of interest in, and a growing realization of the importance of this phase of educational effort, rather than in concrete, effective results in many schools. These results will come later.

At the present time there are more than six hundred consolidated rural schools in the United States. From correspondence with state superintendents and many other school officials, the committee has been forced to the conclusion that in practically all of these schools the condition is the same as in the rural high schools; as yet little has been done to modify the ideals or the teaching in these schools for effectiveness on the industrial side of education. The environment of these schools and the homogeneous character of the student body, coming as it does from the country, seem to make the demand imperative for this work, and to furnish conditions favorable for it within somewhat narrow limits. The lack of initiative on the part of teachers and school boards, the force of established custom in school work, the lack of enthusiastic teachers competent to give the proper instruction, and of funds to employ them when available, and the lack of equipment, have been the deterring causes in this, as in other fields of educational uplift.

The Bureau of Education early this year published a bulletin entitled, *Agricultural Education, Including Nature-Study and School Gardens*. This bulletin was prepared by Ralph Jewell, fellow of Clark University, and presents an exhaustive summary of what is being attempted in this and other countries in the organization of agricultural education. It is probably the most complete study of the subject yet published. Its statements are based on a careful investigation of published reports, and on reports from individuals interested in agricultural education, and secured through an extensive correspondence. The completeness with which the subject is treated in this bulletin makes it entirely unnecessary for your committee to attempt to cover this field.

In view of the timely appearance of this bulletin and of the field covered in the two reports already made by your committee, and of the numerous calls made upon the committee for information of what is actually being done in schools where this work has been undertaken, it was thought best to limit the scope of the present report to a presentation of what is being done in schools representing four different types of organization, as showing the possibilities in other schools of these types, and the conditions under which these possibilities may become actualities.

The schools selected upon which to report were the Waterford High School, at Waterford, Pennsylvania, the Cecil County High School, at Calvert, Maryland, the John Swaney Consolidated School, in Magnolia Township, Putnam County, Illinois, and the congressional district agricultural schools located at Americus, and Monroe, Georgia.

These particular schools were chosen after an extended correspondence for the purpose of determining what schools of a given type would furnish the most profitable field for study. It is probable that there are other schools in each class which might have been studied with equal advantage, and it is not the intention of the committee to claim that any one of these schools is the best of its class.

D. J. Crosby, expert in agricultural education in the United States Department of Agriculture, was invited by the committee to investigate the work of the Waterford and Calvert schools and to prepare a report of his investigations for the use of the committee.

This special report set forth so fully the conditions under which the agricultural work in the two schools is being carried on, and the character of the work, that it is submitted without material modification.

Your committee desires to express its appreciation of Mr. Crosby's interest in its work, of the value of his report, and of his kindness in preparing it, especially as he declined to accept payment for his services.

At the request of the other members of the committee, Mr. O. J. Kern personally investigated the consolidated schools and the congressional district schools, and the result of his investigations is submitted as a special report.

The Waterford school was chosen for investigation because it was one of the first high schools in the country to try the experiment of introducing instruction in agriculture and employing an agricultural-college graduate to give this instruction, and was typical of the ordinary village high school, and of the township high school found in some states. The agricultural course, as at present administered, carries the study of field, orchard, and garden crops through one year; plant life one year; agricultural chemistry one year; soil physics one term, and animal husbandry two terms; the entire work in agriculture requiring a trifle more than one-fifth of the whole time devoted to recitations.

The agricultural course is a modification of the scientific course offered in the school. This modification consists in the omission of one term's work in each of the following subjects: English history, United States history, physical geography, astronomy, literature, psychology, chemistry, and common branches; one term's elective work in physical geography, bookkeeping, commercial law, and commercial geography; and the addition of the agricultural subjects named above. The modification of the course as shown in this school is doubtless the same in nature as is likely to be made in most high schools at the outset of this experiment in introducing industrial education. Here and there will be found a school board and principal radical enough to make more marked modification in the high-school course, especially in reducing the total amount of work required. The county and state secondary schools distinctively devoted to industrial education will furnish the suggestions for the modification of courses in the high schools, and in this respect they play a very important part in the development of the movement for industrial education through the rural high schools.

The supervision of the outlying district schools of the township by the principal of this high school is a feature unknown in many states, and impossible in most of them without special legislation. It is a very suggestive arrangement, however, and where feasible would seem to be a desirable one, especially if the principal of the high school had the proper training for giving the instruction in agriculture in the high school and for guiding and directing the work of the teachers in the rural schools in their nature-study exercises and instruction in the elements of agriculture.

The fact that during the four years the course has been organized six different teachers have been employed to give the instruction in agriculture brings out one of the serious problems connected with the carrying on of this work in the small high school. The special report shows that these teachers were required to teach not only agriculture but a number of other high-school subjects. To do both lines of work well they must be persons who have had a breadth of training not found in the case of the ordinary high-school teacher, and with this preparation they can command a salary very much in excess of what has been paid these teachers in the Waterford school.

As the principal of a school is always the best-paid teacher in it, it would seem that the solution suggested in connection with this school is the wise one: viz., that the man selected as principal shall be one who has had special training fitting him to give instruction in agriculture in a satisfactory manner. It is equally evident that he must have had such instruction and training as will fit him for teaching other subjects he must carry in the school.

There is another decided advantage in this arrangement. The principal of a high school who has had good training in scientific agriculture and its applications is one likely to realize the value of this work and to be in sympathy with it and able to make the most of it. He will see that, if introduced into the school, it is given the time and attention necessary to do it in a satisfactory manner, and he will be more likely to find a place for it without overcrowding the students, than the principal who has never had such training and who does not appreciate the importance of this phase of education.

The Calvert school in Cecil County, Maryland, is a type somewhat unusual as yet, in that it was organized as a county high school with the avowed purpose of making instruction in agriculture a distinct feature of the school. The course of study indicates that nearly two-fifths of the school time for both boys and girls is devoted to agricultural subjects and related laboratory and field-work, while the remaining portion of the time is given to the regular academic work found in most high schools.

This school in its purpose and plan of organization stands between the ordinary high school with the college preparatory courses and the Wisconsin and Michigan county schools of agriculture and domestic economy. In the latter, more than one-half of the class work for the boys is given to agriculture and handwork in wood and iron, and the same amount of time is given the girls for work in the domestic arts; the remaining time being devoted to such of the ordinary high-school subjects as seem best suited to the needs of the students.

Wisdom was shown by the organizers of this school in giving a preparatory course, thus offering the opportunities of the school to a larger number of pupils, inviting their attendance, and arousing their interest in completing the full course.

It is probable that in the development of the work in this school provision will be made for substituting instruction in the household arts for the girls, in place of a considerable portion of the work in agriculture they are now required to take, and that for the boys some instruction and training may be offered in the use of farm tools and machines.

The suggestion, that by consolidating a number of schools immediately contiguous to Calvert into a central school in connection with the high school, the per capita cost of instruction for pupils in the high school could be lowered, may be true because of peculiar conditions now existing in these outlying schools and in the county school. In most cases it is doubtful if such a lowering of cost of high-school instruction would result from consolidation unless the per capita rate were made to include all the pupils in the high-school and elementary grades. A comparison of the cost of the elementary grades in the consolidated school with the cost of the several outlying schools before consolidation will, in most cases, show an increase in the total expenditure atfer consolidation has been effected. Consolidation under ordinary conditions will in no way lessen the cost of instruction in the existing high school, unless it serves to increase the attendance in the high school when it is too small to occupy fully the time of all the teachers who must be employed.

There seems to be no way of escaping the conclusion that practical and effective industrial education in any type of school adapted to the needs of rural communities will make such school more expensive than those now found in these communities and which do not offer opportunity for any kind of industrial education.

The John Swaney Consolidated School is a type of the consolidated country school comprising an area less than an entire township. It was selected for the purpose of this report as affording the best illustration of splendid public sentiment, private liberality, and wise organization combined, that the committee was able to find in any consolidated district in the United States.

In the opinion of the committee the work being done at this school is very suggestive: first, as to the conditions and sentiment which must exist in a community in order to secure the necessary funds for the establishment and maintenance of such a school; and second, that the success of the work in any school of this kind, no matter how adequate its equipment, must depend upon the quality of the teaching force. In any community where these conditions and sentiment can be developed, the consolidated school offers great opportunities for the development of industrial education in rural communities. But it is evident that this work cannot be carried on on a scale commensurate with the needs of the pupils, without a much larger expenditure of money for the maintenance of the school than is now common.

The congressional-district agricultural schools of Georgia are a new type of schools, presenting many new and interesting problems not heretofore considered in this country. For this reason it seemed important to present the plan of organization, purposes, and scope of work contemplated in them, as well as some account of what they are now doing. They have been established so recently and under such new and unusual conditions that the report of what is being done necessarily deals with the preliminary work required in the organization of a school of this type, where so much of the outside work, usually done before a school is opened, is done by students after entering the school.

The suggestions made in the report as to the character of the instruction and the amount of work required upon the farm in connection with the schools are not intended in any way as criticisms, but are designed to call attention to the difficulties presented in the organization of such schools under conditions which exist. It is already apparent that further provision in the way of funds must be made for carrying on these schools successfully. The same problem of adequate equipment and competent and sufficient teaching force is presented here as in the other schools considered. The spirit of the New South is warrant for the belief that the legislature of Georgia will realize the necessities of the schools and will as rapidly as possible increase the fund for their maintenance. The surest way for these schools to command the support of the people and of their representatives in the legislature is to give such practical instruction and training to the young people attending them as will soonest show results upon the farms in the districts where the schools are located.

No report is made of the work being done in the one-room rural schools. Correspondence with school officials indicates a great interest in this subject, and an increase in the agencies offered for giving some preparation to the teachers of these schools for intelligent work in the industrial field. Work in this type of schools, of one sort or another, is being undertaken in most of the agricultural states. Wherever success is being secured, it is due to the preparation and personality of the teacher. It must not be forgotten that experiments carried on here and there in school gardening, nature-study, and elementary agriculture are awakening a general interest in this subject, but at the same time are demonstrating the total inadequacy of this work in the district school with one teacher, to meet the needs of the children in rural communities. The committee cannot escape the conviction that adequate facilities for meeting the increasing demand for industrial education must come through schools of secondary type, and that it is far easier at the present time to secure this instruction in adequate form in schools which are distinctively organized for this special work. As has already been set forth in the first report, such schools will show the possibilities of work in the industrial field. They will call into the field teachers who are prepared to carry it on intelligently. They will encourage those who have already begun this work in existing schools, and incite other schools to introduce it. They will in time organize matter for instruction in far better form than it exists today, and they will serve materially to aid the ordinary high school in adjusting its work, through the experience of the special school, to meet the needs of the community it serves. In most states legislation is needed for the organization of this type of school, but the demand for it is coming from the farming population backed by arguments so strong that legislatures are likely to heed. For such schools, not numerous at first, it is possible to secure appropriations far in excess of what can be secured for the ordinary high school or the consolidated school. This will make it possible to command the services of better trained teachers and secure better equipment for work. It will dignify the whole subject of industrial education in the estimation of the farming population, and will open up possibilities of utilizing such schools for carrying on this work still further than is done at present.

WATERFORD HIGH SCHOOL, WATERFORD, PENNSYLVANIA

D. J. CROSBY

About fourteen miles south of Erie, Pennsylvania, surrounded by rich undulating farming lands, is the thriving little village of Waterford, the English successor of old Fort Le Bœuf, which was established in 1753 as one of the line of French forts between Quebec and New Orleans. After the English had come into possession of this territory the name of the place was changed in 1794 to Waterford and four years later the first school in Erie County was established there. In 1811 Waterford Academy was incorporated, in 1822 the substantial stone academy building now occupied by the high school was erected, and in 1826 the academy was opened. In 1899 the Waterford High School was established and the property of the academy was formally turned over to it. The high-school building as it now stands consists of the old stone academy building, a brick extension which served for many years as a dormitory for pupils in the academy but is now occupied as a residence by the principal of the high school, and a one-story ell containing two rooms about sixteen feet square, one used as a laboratory and the other as a recitation room. The main stone structure contains a large classroom on the first floor and an assembly and study-room and a library on the second floor.

The free public-school system of Waterford boro and township, as now organized, consists of the Waterford High School, conducted jointly by the boro and township, the Waterford boro primary and grammar schools of eight grades employing three teachers, and fifteen graded district schools in Waterford township. The principal of the high school has general supervision over all of the schools of the two districts, the same course of study has been adopted for all, and largely the same textbooks are used.

The population of Waterford boro is about 800, that of Waterford township, exclusive of the boro, about 1,500. During 1907–8 the enrollment of pupils in township schools was 227, in boro grades 93, and in the high school 89, a total of 409.

REVENUE AND EXPENDITURES

Waterford High School is supported entirely by local (boro and township) taxation. There is a law providing state aid for township high schools, but since this is supported jointly by the township and boro the state superintendent of public instruction holds that it cannot receive state aid. The funds raised by taxation amount to about $2,400 a year and of this amount $2,025 is expended for teacher's salaries and the remaining $375, for janitor work, textbooks, supplies, and repairs. Entertainments given by the school bring in small sums which are used in purchasing books, pictures, apparatus, etc.

TEACHERS

There are three teachers in the high school and they are hired for nine months. The principal receives $900 and house, teaches science, and supervises the primary and grammar schools of the boro and township. The first assistant receives $675 and teaches agriculture and several other subjects. The second assistant receives $450 and teaches language, mathematics, and history. There is so much work for three teachers that it is difficult to arrange a daily program with a satisfactory division of subjects. Below is given a typical daily program.

DAILY PROGRAM

SPRING TERM, 1908

9–9:20.	Morning Exercises.		
	Miss Wheeler	Mr. Mixer	Mr. Button
9:20–9:50.	Geometry.	Arithmetic.	English.
9:50–10:20.	3d German.	Geology.	Physiology.
10:20–10:50.	Latin.	Physics.	Cereals of America.
10:50–11:20.	Latin.	1st Literature.	4th Literature.
11:20–11:50.	....	3d Chemistry.	Plant Life.

Noon Intermission.

1–1:35.	Rhetoricals.	Botany.	1st Algebra.
1:35–2:10.	Latin.	Physical Geography.	Rhetoric.
2:10–2:45.	General History.	....	2d Literature.
2:45–3:25.	Latin.	....	Poultry.
3:25–4:00.	....	....	Poultry.

The principal is supposed to have his afternoons free for supervision but it is usually necessary, as in the above program, for him to conduct one or two recitations in the afternoon. The first assistant has every period taken up with class work and thus has very little time to prepare practicums or other special work in agriculture. The second assistant has two vacant periods, but these are devoted to rehearsals in rhetoricals.

The first assistant and teacher of agriculture is a graduate of a high school and of the New York State Agricultural College at Cornell University. He spent two years after graduation in the nature-study bureau at Cornell and one year in field-work testing cattle for the state. He is a practical farmer and has been for several years a successful exhibitor of live stock at agricultural fairs. This is his first year as a high-school teacher, and he has gone into this work because he believes that the important developments of the near future in agricultural education will be in its secondary phases.

HIGH-SCHOOL PUPILS

The enrollment of pupils is shown in the following table:

ENROLLMENT IN WATERFORD HIGH SCHOOL
1907–8

	9th Grade	10th Grade	11th Grade	12th Grade	Total
Total enrollment	46	18	5	20	89
Number Studying Agr.	44	16	4	15	79

Apparently agriculture is popular at Waterford. The agricultural course is elective and over 88 per cent. of the pupils are taking work in agriculture. It should be explained, however, that not all of these are taking the regular agricultural course. Quite a number of students in other courses, girls as well as boys, are taking special work in poultry culture.

COURSES OF STUDY

Three courses are open to pupils in the Waterford High School, a language or college-preparatory course, a scientific course intended to prepare for business pursuits, and an agricultural course. About three-fourths of the work is alike in all courses; the remainder consists mainly of Latin and German in the language course, history, the physical and biological sciences, bookkeeping and commercial law in the scientific course, and the physical and biological sciences and agriculture in the agricultural course. All of the courses appear to be rather top-heavy with literature studies. On p. 398 is a program showing the three courses arranged in parallel columns for comparison.

INSTRUCTION IN AGRICULTURE

Agriculture was first offered at the Waterford High School in the fall of 1904 and since that time, in spite of frequent changes of teachers of agriculture, the work has been kept up and has grown in popularity. All of the teachers thus far, with one exception, have been agricultural-college graduates, and the exception was a college graduate, a teacher of considerable experience, and had been for two years connected with the Ohio Agricultural Experiment Station.

Agriculture is taught by means of textbooks, lectures, demonstrations, laboratory exercises, and outdoor practicums. Students in the agricultural course have one 30-minute period in agriculture daily for four years. This is the regular work of the classroom, the laboratory, or the field. They are also

PROGRAM OF THE WATERFORD HIGH SCHOOL

FIRST YEAR

Terms	Language Course	Scientific Course	Agricultural Course
Fall	English—Grammar. Literature. Algebra. Physical Geography. Latin.	English Grammar. Literature. Algebra. Physical Geography. English History.	English Grammar. Literature. Algebra. Physical Geography. Agr.—Plant Life.
Winter	English Grammar. Literature. Arithmetic. Algebra. Physical Geography (Elective). Latin	English Grammar. Literature. Arithmetic. Algebra. Physical Geography (Elective).	English—Grammar. Literature. Arithmetic. Algebra. Agr.—Plant Life.
Spring	English—Grammar. Literature. Arithmetic. Algebra. Physical Geography. Latin.	English—Grammar. Literature. Arithmetic. Algebra. Physical Geography.	English—Grammar. Literature. Arithmetic. Algebra. Agr.—Plant Life.

SECOND YEAR

Fall	English. Literature. Algebra. Latin.	English. Literature. Zoölogy (Elective). Algebra. Bookkeeping. (Elect.)	English. Literature. Zoölogy. Algebra. Agr.—Field, Orchard, and Garden Crops.
Winter	English. Literature. Latin. Algebra.	English. Literature. Physiology (Elective). Com'l Law (Elective). Algebra.	English. Literature. Algebra. Agr.—Field, Orchard, and Garden Crops.
Spring	English. Literature. Civics. Latin.	English. Literature. Civics. Com'l Geog. (Elect.) Physiology (Elective).	English. Literature. Civics. Physiology. Agr.—Field, Orchard, and Garden Crops.

PROGRAM OF THE WATERFORD HIGH SCHOOL—*Continued*

Third Year

Fall	English—Rhetoric. Literature. Physics. Latin. German.	English—Rhetoric. Literature. Physics. Chemistry. United States History.	English—Rhetoric. Literature. Physics. Chemistry. Agr.—Domestic Animal Studies.
Winter	English—Rhetoric. Literature. Physics. Latin. German.	English—Rhetoric. Literature. Physics. Astronomy. Chemistry.	English—Rhetoric. Literature. Physics. Chemistry. Agr.—Domestic Animal Studies.
Spring	English—Rhetoric. Literature. Physics. Latin. German.	English—Rhetoric. Literature. Physics. Botany. Chemistry.	English—Rhetoric. Physics. Botany. Chemistry. Agr.—Soil Physics.

Fourth Year

Fall	Literature. General History. Geometry. Latin. German.	Literature. General History. Geometry. Psychology. Chemistry.	Literature. General History. Geometry. Agr.—Chemistry of Soils.
Winter	General History. Geometry. Latin. German.	Literature. General History. Geometry. Chemistry.	English Literature. General History. Geometry. Agr.—Chemistry of Plant and Animal Life.
Spring	General History. Geometry. Latin. German.	Literature. General History. Geometry. Geology. Common Branches.	Literature. General History. Geometry. Geology. Agr.—Chemistry of Plant and Animal Life.

given special assignments which increase considerably the time devoted to agriculture. Thus, at the present time one group of pupils is caring for incubators, another for brooders containing about 175 chicks, another is testing a lot of seed corn, and another is testing milk. No special periods are assigned in the school program for work of this kind; the assignments are arranged personally with the different groups.

The uniform arrangement of recitation periods and the fact that the teacher of agriculture has every period in the day taken up with class work make it difficult to arrange outside trips or to keep close oversight of the laboratory work and special assignments of the pupils. With all the disadvantages of such an arrangement there appears to be one compensating advantage—pupils are thrown very largely on their own responsibility and must trust to the textbook, the notebook, and their own resources to carry them through.

SPECIAL APPARATUS OR OTHER EQUIPMENTS FOR AGRICULTURE

The school has very little equipment designed especially for agriculture. It has a fairly good line of apparatus for physics and botany which is used to some extent in the class in plant life and soils; and a laboratory about 16 feet square, with chemical glassware, reagents, an ordinary kitchen sink, and tables which serve for laboratory exercises in the chemistry of soils and plant and animal life. This laboratory room is at present used as an incubator room for the special course in poultry culture. It contains five incubators ranging in capacity from 380 eggs to 50 eggs. One of these was loaned by the manufacturer and four by farmers. The laboratory room also contains an 8-bottle Babcock milk tester belonging to the school, two oil stoves, and considerable home-made apparatus set up by the pupils, including seed testers in which corn and clover seed, etc., are now being tested. In the agricultural classrooms, adjoining the laboratory, are a number of seed testers, a hand milk separator, the agricultural library of the school consisting of reports, bulletins, textbooks, and reference books, and twenty-eight agricultural journals. One of the seniors in the agricultural course has charge of the agricultural library and keeps the latest papers in the room for the use of the pupils.

Outside of the school building there are two borrowed brooders containing chicks and one brooder designed and made by one of the pupils, which is proving quite satisfactory.

Heretofore the school has labored under the difficulty of not having land for field-work, although it is doubtful whether much could be done in the way of raising farm crops or attempting any experiments which need to be looked after during the summer months, owing to the fact that the teacher of agriculture is paid such a small salary that he cannot afford to spend his summer looking after the work of this school. This year one of the residents of the village has donated to the school for an indefinite period the use of three and one-half acres of land, a part of which is occupied by twenty old apple trees. Some work has been done in this orchard, and plans have been made for completely renovating it, grafting some of the trees and spraying all of them. This will be the horticultural laboratory of the school. The school has already done some orchard work in the way of spraying, pruning, and grafting other orchards. It is proposed also, if possible, to put out a patch of potatoes and conduct some spraying experiments to prevent potato blight.

WORK IN NATURE-STUDY AND SCIENCE TO PREPARE FOR AGRICULTURE

Comparatively little attention is given to nature-study exercises in any of the township or boro schools. Bird study is required by law and this with elementary lessons in physiology and hygiene constitutes about the only work relating to science before the pupils reach the high school. In the high-school agricultural course instruction in physical geography precedes the study of soils and instruction in zoölogy precedes the study of domestic animals. The instruction in botany, which comes in the last term of the third year, proceeds largely along the line of analytical and herbarium work; that in general chemistry, which prepares the way for agricultural chemistry, is textbook work supplemented by laboratory demonstrations and practice that in zoölogy is textbook study with a little laboratory work with crustaceans.

OBSERVATIONS BY THE VISITOR

I reached the school in the morning in time for the opening exercises which occupy about twenty minutes daily throughout the year, and usually consist of a chapter from the Bible, one or two recitations, and one or two essays by the pupils. Each pupil is required to give four recitations and read four essays of his own composition during the course of the year and this, instead of being given in a number of special programs, is distributed over the morning exercises of the year. On the first morning of my visit there were two recitations and two essays. One of the essays was on the subject of corn breeding and is given below. On the second morning one of the essays was on the subject of wood and included a discussion of the uses of wood, protection of forests, and other matters concerned with practical farm forestry.

CORN BREEDING

EARL BARNS, SECOND YEAR, AGRICULTURAL COURSE

As corn has developed in yield and composition high above its wild prototypes, it has a constant tendency to revert back to its original form. This is commonly known as "running-out." To keep corn up to its present standard and to improve it if possible, we practice corn breeding.

So much progress has been made in corn breeding that it is hard to tell what was its ancestor. It has been bred in many different directions. This is marked by the great number of types and varieties of corn.

The principle of selection is the method employed in breeding maize as well as in breeding all other things. Seed corn is usually selected in one of three ways: Selecting ears of corn from crib; selecting at the time of husking; or selecting while the corn is growing in the field. The advantage of the second over the first is that one can select with some regard to the stock. The last though is best, because it enables one to determine whether the good quality is the result of environment or whether it is the result of hereditary force.

Corn is usually bred with one or more of the following objects in view—namely, composition, proportion of grain to cob, and yield per acre.

The general run of corn is high in carbohydrate material and low in both protein and ash. As farmers of the northern states have to buy much protein, it might seem desirable that maize should contain more protein. To do this we must breed up a strain of corn with a large proportion of corneous endosperm, because that part contains the most protein of any part of the grain. If the breeder wishes to increase the fat percentage he should select those ears the kernels of which have large embryos.

The selection of ears of the right proportion of corn to cob is also of great importance and is closely connected with high yield. A small cob is usually desirable as the grain cures and keeps much longer if the cob is small. About 1 part of cob to 4 or 4½ of corn is a desirable proportion. Very little can be told as to the proportion of cob to grain without the use of accurate scales.

In breeding corn one, to begin with, should select 100 ears having the qualities desired. These should be tested and the 40 which germinate best selected out. Number the best ear 13, the two next best 12 and 14, etc., until the two poorest are numbered 1 and 25. Then choose a plot 50 hills square and number the rows from 1 to 50. Plant ear No. 1 in rows number 1 and 26, etc., until ear number 25 is planted on rows 25 and 50. Other corn of the same variety should be planted around the breeding plat so as to insure thorough pollination. When the corn ripens, select 20 ears from each of the five best rows and proceed as the year before.

As another special feature in English, two seniors are selected each week to report "School Notes" to the local weekly paper. These notes consist of personals, mention of examinations, new work, and other special features, including frequent mention of agricultural work in progress. The following items were clipped from the *Waterford Leader* of March 5, 1908:

Farmers who wish to find out the best cows in their herds may do so by sending in a sample of milk to the agricultural department of the school, which will be glad to test the milk. As cows vary widely from milking to milking in the per cent. of fat, the sample should be of equal parts from four consecutive milkings, each being carefully mixed by pouring from pail to pail before the sample is taken. A two-ounce bottle is sufficient. If it is desired to make a test for a longer time, Professor Button will be glad to furnish preservative for the sample of milk.

As a result of the enthusiasm and interest shown by the scholars who attended Mrs. Allen's lectures on poultry at the institute, a class in poultry husbandry is to be started in the high school for the spring term. Professor Button has already been promised the use of three incubators. It is proposed to run the incubators with marked eggs brought in by the students and it is hoped that each breed will be represented if possible. After hatching, the chicks will be kept for several weeks in the brooder and instruction given in the feeding of them and in the management of the brooder. There is every indication that this will prove highly interesting and profitable work, both for the students and their parents.

The amount of food which an animal consumes above the life-sustaining point brings the profit to the owner.

Now is a good time to trim up the orchard and take a trip around the fences with a pocketful of nails and staples.

CLASSES IN AGRICULTURE

The first class visited was studying Hunt's *Cereals of North America*, and consisted of fifteen pupils mostly belonging to the second-year class, although there were a few fourth-year pupils who were not taking the regular agricultural course. This class was considering corn production—the different ways in which weeds injure corn, such as reducing the available supply of moisture, using up plant food, and shading the ground and keeping it cool, which is injurious in regions lying in the northern limits of corn production; deep and shallow cultivation, and early and late cultivation and their uses. When discussing the importance of early cultivation and the fact that it allows air to reach the germinating kernels the teacher illustrated the necessity of air in this connection by displaying two samples of corn which had been put in water at the same time, one sample being partly covered with water, while the other was completely immersed in water which had been boiled to drive out air. The sample which had access to air was sprouting nicely while the other had not started. The two were set aside to be observed from time to time until the pupils were satisfied whether the sample excluded from air would germinate or rot.

The plant-life class on the first day discussed the selecting and breeding of corn and gave some attention to the history of its development and the causes of variation. They were frequently called upon to verify their statements by illustrations taken from their own experiences or from their study of publications other than the textbook. On the second day this class took up the selection of potatoes for seed and discussed the relative value of bin selection and hill selection, the points to be observed in making the selection, and the methods to be used in fixing types. Potatoes were passed around the class illustrating characteristics discussed by the instructor and thin sections were cut to show the structure of the potato.

The class in poultry culture was so large that it recited in two sections, each containing about thirty-five pupils. This class was organized for one term of special work at the beginning of the spring term and the four third-year pupils were allowed to take this instead of the regular work assigned for this term which was soil physics. The third-year class is so small this year that there has been considerable difficulty in arranging its work. The instruction in poultry culture is given by lectures and the study of bulletins from the United States Department of Agriculture and the Experiment Stations. On the day of my visit the discussion was on the fattening of poultry and marketing of eggs, with some attention to the most desirable breeds for early broilers, for roasters, and for egg production.

As indicated above, the pupils in the poultry courses are given assignments in caring for the incubators and brooders. In the incubator work two pupils are assigned to look after each tray of eggs for one week, at the end of which time the assignments are shifted. I spent considerable time in the incubator room, looking over the incubators, talking with the boys, and listening to their talk with each other. I found them very much interested and thoroly impressed with the responsibility thrown upon them. None of them, however, was anxious to get rid of this responsibility; on the other hand, they would have liked to have their assignments extended to cover the three weeks of incubation.

The work with the brooders outside seemed also to be very attractive. The pupils who had charge of these would run out every little while to see that everything was all right, and during intermissions the brooders were surrounded by a crowd of pupils.

There is a large poultry establishment in the outskirts of the village which the students in poultry culture have visited for the purpose of studying different types of incubators and brooders and the construction of poultry buildings. Toward the close of the year students will be given some practice in judging poultry with the score card.

It is seldom practicable to take a whole class in agriculture into the laboratory for practice work. Instead of doing this the pupils are given assignments similar to the assignments in poultry culture. Thus three of the boys were given three samples of milk which had been sent in for testing and told to go into the laboratory and conduct the test. This they did without aid from the teacher except to find the sulphuric acid which had been misplaced, and about as readily as college students go through their exercises for the first time. Each of the three boys took one sample and made two tests of it, one as a check upon the other, and only one apparent error was made in carrying out the exercise.

The work of the school in testing milk has aroused considerable interest in the vicinity owing to the fact that some milk tested for the cheese factory was found to contain entirely too much water. Of course the name of the man whose cow got too near the pump was not made public but the people of the village tell an amusing story of the excuse made by this man when the superintendent of the cheese factory confronted him with the evidence furnished by the school. He admitted that his milk had been "watered" that morning but stated it was a mistake of his. He had picked up a small can which he had supposed contained milk and emptied it hurriedly into a larger milk can. Just as the last of the contents was dripping into the large can he discovered it was water. He did not explain how water got into the milk on other mornings, although the adulteration had been going on for some time.

The school is testing seed corn this spring for a half-dozen or more farmers and is now making some tests of clover seed. It has also made some microscopic tests of cattle feeds and in one case discovered that a considerable consignment of bran which had been purchased by a local dealer was badly adulterated with ground corn cobs. This discovery was made just before the farmers' institute was held at Waterford this year and it caused a good deal of discussion. In this connection it may be stated that one indication of the hold that the instruction in agriculture has taken upon the pupils is found in the increasing attendance not only of farmers, but of their sons and daughters, at the farmers' institutes. This year practically the whole school attended the sessions of the farmers' institutes and they did this, not because they were required or urged to do so, but because they were interested in the discussions. The members of the last institute force who took part in the institute at Waterford were astonished at the number of young people in attendance, and spoke in high praise of the work of the school as indicated by the knowledge of agricultural subjects displayed by the pupils.

OPINIONS OF PATRONS OF THE SCHOOL

Eight patrons of the school were visited. Four of these were members of the high-school board and two were residents of an adjoining township, who were paying tuition for their sons. The question of abandoning the teaching of agriculture was not once hinted at, although the members of the board were considerably worried over the problem of keeping a good teacher of agriculture.

In the four years that agriculture has been taught at Waterford six different teachers of agriculture have been employed. Four of those who have left have gone to more lucrative positions and one resigned to assume charge of the home farm after his father's death.

The members of the board are convinced that they cannot retain a good teacher of agriculture on a salary of $75.00 a month for nine months, but they do not feel able to pay more. Any increase in the expense of conducting the school is quickly felt owing to the fact that the funds for the school are raised entirely by local taxation. The annual cost of running the school is only about $27.00 a pupil, and yet the question of high salaries was raised three or four times, while in the case of the Cecil County Agricultural School in Maryland, where the cost is over $50.00 a pupil annually, salaries aggregating 19 per cent. more for the same number of teachers in a much smaller school were not once mentioned.

The only solution of the salary problem at Waterford seems to be the election of an agricultural-college graduate as principal of the school. This plan was suggested by each of the four members of the board interviewed, but will not be put in operation until the present principal retires to accept a better position, which he is likely to do in the near future. One of the older members of the board, the member who first suggested the introduction of agriculture, believes not only in this program but also in the employment of one assistant who can teach domestic science subjects for the girls.

The president of the board believes in the teaching of agriculture because so many of the high-school graduates return to the farm and so few go on to college. He and several others called attention to the fact that nearly every householder in the boro is a farmer, a merchant who also owns one or more farms, or a retired farmer. There is no manufacturing in the village except that which depends directly upon the surrounding farms; a cheese factory, a creamery, a flouring mill, and the usual repair shops are about the only industrial plants. It is not strange therefore that many patrons of the school should look with favor upon the teaching of agriculture.

One of the farmers visited, father of two boys in the first-year class, was a renter who had moved into the township for the express purpose of educating his children in a school where they could study agriculture. He had carefully considered the relative advantages of moving to a farm near one of the state normal schools or to one near the Waterford High School and had decided in favor of the latter. His boys had been in the high school seven months and he had no reason to regret the choice he had made.

Following are brief statements gleaned from opinions expressed by some of the farmers interviewed:

"The teaching of agriculture has increased the respect of our farmers for 'book farming.' It has awakened an interest in farming and in farmers' institutes. A few years ago we couldn't get anybody to attend the institutes; this year there wasn't standing-room. It has encouraged several boys to go to agricultural colleges. It is turning the minds of the boys toward farming as a desirable occupation. My boy talks of nothing else and constantly surprises me with the knowledge of agriculture he has gained. It is a good deal better for boys than going to the state normal school (this from a graduate of both schools). I believe it will help keep the boys on the farm; my boy is more interested in agriculture than in any other subject. It should be taught in all village and township high schools in the state."

A mother who had taught for years thinks agriculture the best thing in the school and is especially pleased with the written work in agriculture. Her boy chooses agricultural subjects for his compositions.

A father would rather see any other study thrown out of the course. His boy takes much interest in the poultry work and is becoming a much closer observer on the farm.

DIFFICULTIES AND THEIR REMEDY

The chief difficulty in carrying on the instruction in agriculture at Waterford—that of retaining the services of a good teacher—has already been alluded to in the opinions of patrons of the school. And the members of the board are about right in their conclusion that when it becomes necessary to select a new principal, it will be advisable to get a man who can teach agriculture. This would be an ideal arrangement. The principal of the high school, as supervisor of the boro and township schools, would be able to do much to encourage and direct nature-study work leading directly and effectively up to the agricultural work of the high school. By arranging his work so as to keep his afternoons entirely free from instruction in the classroom he could also devote more time than can the present teacher of agriculture to the outdoor features of instruction in this subject.

In this connection I believe it would serve a very useful purpose if the board would hire the new principal by the year, pay him a salary larger in proportion, and arrange to have him give his whole time, for eleven months at least, to the school and its patrons. With such an arrangement, demonstration experiments could be conducted throughout the summer to illustrate the value of different fertilizers and different methods of cultivation, the effect of spraying orchards and vegetables, and numerous other features of agricultural practice which are now well established in the more highly specialized agricultural districts but are coming too slowly into general practice.

During the school vacations the principal could also render effective aid to the farmers of the township by visiting their orchards, gardens, and fields and advising them on matters of practice which are as yet new and unfamiliar to them. He could show them how to mix their own fertilizers, how to prepare and apply various liquid and dust insecticides and fungicides, how to breed up their field crops, how to renovate the many neglected orchards, etc. Of course there are many good farmers who are able to get and are now getting just such information from books and bulletins and agricultural journals, but there are also many who are not so fortunate and will go on doing things "in the good old way" until they fall hopelessly behind their neighbors in the struggle for existence. Such men need to be shown.

The Waterford High School is a small school and an inexpensive school. It is one of the oldest schools in western Pennsylvania and is located in a community which is almost purely agricultural and inclined to be conservative. And yet it has broken away from old ideals more completely than any other school in the state and for four years has offered its pupils the opportunity to pursue a vocational course of study. That this opportunity has been appreciated is fully demonstrated by the fact that during these four years at least 45 per cent. of the pupils have elected the vocational course and at the present time over 88 per cent. of them are taking this course.

The agricultural course at Waterford embraces practically all of the educational features of the other courses, gives valuable manual training in the making and manipulation of apparatus and materials which the other courses do not afford, arouses interest and gives considerable information concerning the fundamental industry of the community, and in several ways renders effective aid to the members of the community outside of the school. Thus it is making real progress in bringing the interests of the school and the home closer together.

CECIL COUNTY AGRICULTURAL SCHOOL, CALVERT, MARYLAND

D. J. CROSBY

Prior to the autumn of 1906 the northwestern part of Cecil County, Maryland, was without high-school facilities of any kind. There were numerous small country schools but none of these carried the pupils beyond the seventh grade and several of them failed to carry them much beyond the sixth grade. Upon the request of the patrons of Calvert and vicinity the Cecil County School Board decided in the summer of 1906 to establish at Calvert a high school, and to give the course of study an agricultural trend.

Calvert is a small hamlet consisting of two stores, a church, a Quaker meeting-house, a blacksmith shop, a primary-school building, and a few scattered dwellings. It is surrounded by rich farm land which is occupied by a thriving rural population engaged in general farming and the production of milk.

Having decided upon a school at this point, the school board appealed to the Maryland Agricultural College and the United States Department of Agriculture for aid in securing a competent teacher and outlining a suitable course of study. The Department of Agriculture, through its Office of Experiment Stations, responded to this appeal by furloughing Mr. H. O. Sampson, a graduate of the Iowa State College of Agriculture and Mechanic Arts, who had had experience in teaching agriculture in an elementary high school in Pennsylvania, to take charge of the school as principal and teacher of agriculture.

The school was opened November 5, 1906, in a small two-room school building rented for a nominal sum from the Society of Friends. This building, which is still occupied by the school, is 45 feet long, 30 feet wide, and 16 feet high to the eaves. It contains a schoolroom 31 feet long by 28½ feet wide. In the rear of this is a recitation room 28½ feet by 11 feet. In the large room there are seats for 52 pupils. Two teachers were employed the first year, the principal and one assistant, and the salary roll was $1,100. Thirty-eight pupils were enrolled on the first day and fifty-eight during the year. The small recitation room was supplied with a case for supplies and apparatus, and a laboratory table, and became the agricultural laboratory of the school. All pupils were required to study agriculture which was taught by means of textbooks, lectures, laboratory exercises, and field trips. The following statement from the Annual Report of the Director of the Office of Experiment Stations for 1907 gives an indication of the success of the school during this first year and the estimation placed upon it by the patrons of the school.

> The principal, in addition to his regular work, visited the elementary schools within a radius of four or five miles from Calvert, giving talks on nature-study and elementary agriculture, and helping the teachers to start work along these lines, and in the spring months conducted night school for the large boys who were compelled to drop out of day school to assist in farm work. Practically all of the boys attended night school regularly, and at the close of the year passed the examinations given to the other students.
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> The school won the approval of the community almost immediately. Within four months after it opened plans for a permanent school were set in motion, with the result that the county school board appropriated $5,000 for a high-school building at Calvert. Plans for this building were drawn and submitted for bids and a site was donated, but it was found that the appropriation would not cover the cost of the structure planned. Building operations have therefore been postponed until more money can be raised.

REVENUE AND EXPENDITURES

The school is supported by state and county taxes. The budget for 1907–8 includes nearly $3,000 from the county fund. A bill was before the legislature providing for the appropriation of $2,000 annually by the state in support of this school. At the time of my visit it was supposed that the bill had become a law. It was discovered later that in the confusion incident to the closing work of the session it had been overlooked and consequently the school will not secure state aid this year. The expenditures for the current school year will be approximately as follows: equipment, $300, repairing buildings, $200.

TEACHERS

The principal receives $1,600 for 9 months, and teaches agriculture, science, and mathematics. The first assistant receives $400 and teaches literature, rhetoric, geography, and grammar. The second assistant receives $400 and teaches literature, history, and mathematics; total expenditure, $2,900.

PUPILS

The enrollment of pupils during the present year has been 17 in the preparatory class, 15 in the first-year class, and 25 in the second-year class.

COURSE OF STUDY

Grade	Language	Mathematics	Science	History	General* Exercises
Prep. year	Spelling, grammar, literature	Arithmetic	Elementary agriculture, geography	United States and Maryland history	Agricultural practice
First year	Spelling, grammar, composition	Arithmetic, algebra	Agriculture, plants and soils, physical geography	United States and Maryland history; civics	Agricultural practice
Second year	Grammar, literature, composition	Farm and business arithmetic, algebra	Agriculture, farm crops, botany	English history; civics	Agricultural practice
Third year	Literature, rhetoric, composition, Latin	Farm bookkeeping, plane and solid geometry	Agriculture, domestic animals, physics	Ancient history	Farm mechanics; agricultural practice
Fourth year	Literature, rhetoric, composition, Latin	Geometry, trigonometry, and farm surveying	Agriculture, farm management; chemistry, general and agricultural	Mediaeval and modern history; review of United States history	Farm mechanics; field surveying and mapping; agricultural practice

* Including special agricultural programs every three or four weeks on Friday afternoon.

AGRICULTURE

I. Class-Room Exercises

Preparatory Year

Study of a textbook covering in a very elementary way the subject of agriculture. Hatch and Haselwood's *Elementary Agriculture.*

First Year

The structure and physiology of plants.—How plants feed, grow, and reproduce, and their relation to light, heat, moisture, air, and soil. Goff's *Principles of Plant Culture.*

Soils.—Their nature, functions, origin, properties, classes; relation to temperature, air, and moisture, and their management, including tillage, drainage, the use of manures, and the effect of cropping. Lectures and laboratory work.

Second Year

Farm crops.—Study of the principal field, orchard, and garden crops of the region with reference to culture, protection from insect pests and diseases, and methods of harvesting and marketing. Hunt's *Cereals.* Bailey's *Principles of Fruit Culture.*

Third Year

Domestic animals.—Classes, types, breeds, care, and management of horses, cattle, sheep, swine, and poultry. Score card and judging practice. Study of dairy animals—their feeding, care, and management. Milk—its composition, handling, and uses. Brooks's *Animal Husbandry.*

Fourth Year

Farm management.—Comparison of different systems of cropping and tillage; different types of farming—such as grain farming, stock farming, and dairy farming. Farm plans including size and location of fields, location of buildings, fences, drains, and roads. Study of buildings, water and sewage systems, and roads. Use, care, and management of farm machinery. Farm accounts, including feed, milk, crop, and breeding records.

II. Practice Work

Preparatory Year

Laboratory exercises.—Demonstrations by the teacher and simple experiments with soils and plants by pupils.

First Year

Laboratory exercises.—Seed testing, experiments with plants and soils.

Field exercises.—Studies of plants and soils and farm operations. Plat work.

Second Year

Laboratory exercises.—Selecting and scoring farm crops, study of injurious insects.

Field exercises.—Plat work, spraying and pruning, field excursions, and corn and grain judging.

Third Year

Laboratory exercises.—Studies of milk, butter, and other dairy products.

Field exercises.—Plat work and stock judging.

Fourth Year

Laboratory exercises.—Chemistry of soils and plant and animal life.

Field exercises.—Plat work, stock judging, study of farm machinery, buildings, roads, drainage systems, etc.

Originally it was intended to begin the work of the school with the eighth grade as is done in the standard high schools of Maryland, but owing to the poor preparation of many of the pupils it was found advisable to admit some who really belonged in the seventh grade and to introduce a preparatory or seventh-grade year.

Agriculture is taught in the three grades now represented in the school and will be taught in the two remaining grades as soon as the pupils reach these. Five recitation periods of thirty minutes each are devoted to class work in agriculture during the thirty-six weeks that the school is in session, and from three to five thirty-minute laboratory periods during each week are devoted to experiments and demonstrations. Field trips and studies are usually taken on Friday afternoons between the afternoon recess and the closing hour. Sometimes on the longer trips the students are held until five o'clock. About once a month the last half of Friday afternoon is devoted to an agricultural program consisting of music, recitations, essays on agricultural subjects, and debates.

AGRICULTURAL EQUIPMENT

The school has very little special equipment for laboratory work in agriculture. It has a few test tubes, an evaporating dish, one or two beakers, a Florence flask, a kitchen scale, a laboratory table, a lot of tin tomato cans, a number of sieves, seed testing boxes, and other simple contrivances made by the boys. Some land is available which might be used for school gardens but no gardens have been started at the school except flower gardens for decorative purposes. During the past year, however, the pupils had gardens at their homes which were planted with seeds furnished by the principal and some of which were inspected by the principal.

OBSERVATIONS BY THE VISITOR

General Condition of the School

My arrival at the school was entirely unexpected. I reached the building about eleven o'clock and found the pupils industriously but quietly going about their work. The large room which I entered first was not unlike an ordinary country schoolroom with a stove in the center and rows of seats running from front to rear. In the rear of the room was a raised platform with a piano purchased with the proceeds of entertainments held by the pupils. In the middle of the platform was the principal's table and at the left a long laboratory table. The latter held fourteen tomato cans containing soil experiments by seven boys and girls in the preparatory class who were endeavoring to learn whether surface tillage would conserve moisture in the soil. Each pupil had filled two cans with soil which was packed and saturated with moisture and then allowed to stand on the table while the moisture gradually evaporated. The surface in one can was stirred daily while that in the other was allowed to bake. Near at hand was a kitchen scale upon which the pupils weighed their cans, and found clear indication of the value of tillage as a moisture conservator. On one edge of the table was a piece of apparatus consisting of three lamp chimneys which the principal had arranged to demonstrate the difference between capillary and free moisture or drainage water in soils. The remainder of the table was occupied by three boxes about two feet wide and two and one-half feet long and four inches deep, containing samples of corn which were being tested for farmers by the second-year pupils.

The principal had charge of the large room and conducted most of his classes and demonstrations there. One of his assistants occupied the recitation room in the rear; the other assistant was ill at the time of my visit and her work was being carried on by the principal and first assistant. I was told that her work was carried on largely in a small room in a building across the way.

Conducting a Recitation in Agriculture

I listened to recitations in agriculture by pupils of the preparatory class, the first-year class, and the second-year class. As yet there has been no third- or fourth-year class. The preparatory students were using Hatch and Haselwood's *Elementary Agriculture*, and the recitation I heard was on "Feeding the Stock." The pupils in this class were only about thirteen to fifteen years old, but they seemed to have a pretty good comprehension of the different purposes for which we feed farm animals and the kinds of feed. The teacher did not confine himself to the textbook but asked questions which would bring out expressions of opinion from the pupils concerning their own experiences or observations concerning the feeding of animals. Such terms as fats, carbohydrates, and protein were understood as well apparently as pupils could understand them without a previous knowledge of chemistry.

The first-year class, with Goff's *Principles of Plant Culture* as a textbook, were studying "Insect Enemies of Plants." They distinguished clearly and intelligently between insects with biting mouth-parts and insects with sucking mouth-parts and explained the kind of spraying material or other remedies which must be used to combat these different classes of insects. It was apparent that they had studied a textbook and yet there was a notable absence of implicit and unquestioning reliance upon the textbook which is often painfully apparent among pupils studying more or less abstract subjects. They had applied the information in the textbook to their own conditions and drawn upon their own experiences for examples to confirm or combat the theories advanced in the textbook.

The pupils of the second-year class were studying Bailey's *Principles of Fruit Culture.* Their recitation on the first day of my visit was in the nature of a written review discussing the relative value of tillage and commercial fertilizers in orchard management. The papers had been written on the previous day and were read in class and criticized on the day of my visit. Some of the papers were excellent, and some were full of the ordinary crudities of expression of the high-school pupil, but nearly all showed originality in content. The two papers given below, one by a boy of sixteen, and the other by a girl of seventeen, are among the best of those which were read.

THE USE OF TILLAGE AND FERTILIZER IN GROWING CROPS

VICTOR WILSON, AGED 16 YEARS

To obtain the best results in growing crops it is often necessary to till the land well and also to use fertilizers in a judicious manner.

The benefits derived from tillage are very numerous, and show that tillage is of very great importance. Tillage improves the physical condition of the land. It makes the soil finer and gives greater feeding surface to the roots. It increases the depth of the soil and gives the roots more room. It also improves the physical condition by warming and drying the soil in spring, and reducing the extremes of temperature and moisture. That the soil is in good physical condition is of great importance. The texture of the soil influences its physical condition, and is really of more importance than the amount of plant food which the soil contains. If the texture is very coarse or the land becomes hard or lumpy, plants will not thrive because they cannot use the plant food that is in the soil. Tillage tends to remedy this. By breaking up the soil it makes the plant food available as the roots can then penetrate the soil better, and get the food.

It is said that "the chemist cannot tell what a soil will produce, he can only tell what it contains." This is because tillage has such a great influence. The rich soil may yield a poor crop if not well tilled and allowed to become poor in physical condition. So we see that tillage is of great importance, and it may well be said that tillage is manure.

Tillage, besides improving the physical condition of the land, does a great deal toward saving moisture. It increases the water-holding capacity of the soil, as in breaking up the soil particles there is a greater surface of soil particles surrounded with water. Tillage checks evaporation from the surface, by stopping the water from rising so rapidly by capillary attraction. In this way tillage may save a great deal of soil moisture, and is said to be next to irrigation in power to hold water. In dry regions tillage in this way may be very useful.

Tillage also augments chemical activities in the soil by aiding in setting free plant food, by promoting nitrification, and by hastening the decomposition of organic matter. So we see that tillage may do a great deal for the soil, and this is the reason why lands which are well tilled always grow better crops.

As plants use up a certain amount of the plant food, lands which are farmed a long time may become deficient in the food elements used by the plant. It then becomes necessary to return this plant food in the form of fertilizers. What kind and the amount of fertilizers to use is a question which the farmer himself must answer, as all lands are not the same. He himself, by working with his soil and observing things about it, may discover the treatment which it needs. If his orchard or other crop is doing well, it probably is receiving the right treatment, but if it is not doing well some change is needed. If there is an excessive growth of wood in the orchard at the expense of fruit, there is probably too much nitrogen in the soil, but if there is not enough of wood growth and the leaves turn yellow and drop off early, this is a sign that the soil is deficient in nitrogen. This nitrogen may be obtained in sufficient amount by good tillage, by the use of leguminous cover crops, and by stable manures. Quick results are obtained by using nitrogenous materials such as nitrate of soda.

The farmer should remember that plants need all of the plant food-elements instead of just some of them. For instance, if the soil is deficient in phosphoric acid and potash, it would be useless to apply nitrogen. Heavy clay soils mostly contain phosphoric acid and potash in a sufficient amount, and this may be made available by tillage and applying humus. However, it is advisable to add these elements to the soil if it is cropped a great deal. The farmer should not rely on chemical fertilizers altogether, as they contain no humus. If there is no humus present, the soil will become lifeless in spite of plant food It is better to use commercial fertilizers in rotation with stable manures, or other things supplying humus. It is not always well to mix the fertilizers, but apply the different ones separately, as some parts of the land may need more of a certain element than in other places.

Farmers sometimes do not appreciate the importance of humus in the soil. A clay soil which has become hard and lumpy has gotten that way on account of having no humus. If the farmer has much of this kind of soil he should take measures to improve it. The first step is to improve the physical condition of this soil by adding humus. Stable manure is useful in doing this. He may plow under a crop of some kind, and after a while may get a catch of clover. This when turned under will supply humus. After the physical condition of the soil is improved fertilizers may then be applied with benefit. This may take a long time and hard work, but can be done if it is carried out wisely.

In the use of fertilizers the farmer should experiment and learn what his soil seems to need. In the case of fruit growing, the only general statement which can be made is that liberal applications of phosphoric acid and potash should be made if the best results are expected and he may be able to supply his nitrogen more cheaply by cover crops and tillage than by buying chemicals.

So we see that the subject of tillage and the use of fertilizers is very important, and if the farmer uses good judgment about these things he will be successful.

THE USE OF TILLAGE AND FERTILIZER IN THE GROWING OF CROPS

ANNA K. RITTENHOUSE, AGED 17 YEARS

This should be a very important question to every farmer in the community. Some farmers may say that commercial fertilizer which has been applied to the soil will produce the best crops while others will hold that thoro tillage will be better, thus causing a great difference of opinion.

We are told that some farmers who are not over fond of the farm will ask needless questions regarding the kind and quantity of fertilizers to apply to his land. No person can answer the questions for him but by careful study of his plantation day after day he will soon discover the kind of treatment which the soil needs. If his plantation is giving satisfactory results we may be sure that a certain amount of fertilizer, which is needful, has been applied.

One should be very careful in using these commercial fertilizers, as all the land does not require the same kind of plant food. For example, a large application of nitrogen upon the soil which is deficient in potash and phosphorus cannot be expected to give the best results.

In regard to tilling an orchard some very satisfactory results have been obtained. An orchard which is in sod and not doing well should certainly be plowed and tilled.

Sufficient nitrogen which is necessary for the welfare of the plant may be gotten into the soil by thoro tillage, by the use of leguminous cover crops, and by using stable manure.

Some farmers do not appreciate the importance of the presence of humus in their soils. If humus is not present in the sandy soils they become loose and leachy while clay soils bake and become lumpy. If a farmer has much of this kind of soil it would be of little benefit to apply commercial fertilizers. He should first put it in the right kind of a condition to grow crops, after which a crop of clover should be plowed under. If this does not give immediate satisfactory results stable manure should then be applied. In time the land which has undergone thorough tillage will grow a good crop of crimson clover.

There is no other way to find out which will produce the better crops, commercial fertilizer or thorough tillage, than to try for oneself, as farming cannot be done by recipe.

Thus we see there is much to be learned about the important question of tilling and fertilizing a crop of any kind.

This class on the second day of my visit recited on principles governing the selection of varieties and the selection of varieties of apples for Cecil County. In this they depended upon the textbook for the principles of selection but were compelled to draw upon their own information and judgment in making selections for Cecil County. At the close of the recitation they were referred to a Farmers' Bulletin of the United States Department of Agriculture on *Varieties of Fruit Recommended for Planting* which contains lists of apples, peaches, pears, and other fruits which are "highly recommended," "recommended," and "recommended for trial" in the different fruit districts of the United States. In this they were to study the fruits recommended for the district in which Maryland is located and check up or make additions to their lists.

LABORATORY WORK

The preparatory class and the second-year class had laboratory exercises or laboratory work in progress at the time of my visit. The laboratory work of the preparatory class was concerned with the conservation of moisture in soils, a subject which they had studied a few days before. This has been described above. On the first day of my visit the teacher performed a demonstration to show the difference between capillary moisture and free moisture in soils. He filled three lamp chimneys, mentioned above, with finely pulverized soil which was supported below by pieces of cheesecloth tied over the lower ends of the chimneys. One of the chimneys was suspended with its lower end dipping into a tumbler of water, another was given a small amount of moisture at the top, and the third was saturated. The first two were to show that small amounts of moisture move up and down readily in the soil, the third was to show that wherever there is an excess of moisture in the soil it readily passes off below. While the water was permeating the dry soil in these chimneys the teacher held the attention of the class by performing a little demonstration to show the presence of moisture in soil which seems "as dry as powder." He put a teaspoonful of "dust" in a test-tube and held the latter in the flame of an alcohol lamp, at the same time telling the children to watch closely for any indications of moisture. In just a moment there were excited exclamations from a half-dozen of the boys and girls; an abundance of moisture was seen distinctly in the inside of the test-tube. This the teacher explained was the hydroscopic moisture or film moisture which surrounds each individual particle in the soil and can only be driven off by the application of considerable heat.

I was told that demonstrations and laboratory exercises by the pupils similar to those described above have been in progress practically all of the time since the school began, and there was abundant evidence in a number of pieces of home-made apparatus in the back room of the schoolhouse to show that much attention is given to the laboratory features of instruction. Practically all of the apparatus except a few articles mentioned previously is made by the boys, either at home or at the schoolhouse.

The second-year class had no new laboratory exercises in progress at the time of my visit. The members of this class were making practical application of the laboratory work which they performed last year at about this time. They were testing seed corn for farmers.

A few weeks ago the principal of the school announced through the different county papers that farmers who desired to have their seed corn tested could number the ears they had selected for seed and send six kernels taken from different parts of each ear to the school in packets numbered to correspond with the numbers on the ears and the pupils would test the vitality of the corn and send reports to the farmers. Up to the time of my visit eighteen farmers had sent in seed corn to be tested and one set of samples from fifty ears was received while I was there. The following letter accompanied the samples:

RISING SUN, MARYLAND
April 7, 1908

Mr. H. O. Sampson, Calvert, Maryland.

DEAR SIR: I mailed you yesterday samples from 50 ears, seed corn that I have kept in the kitchen during the winter. Will you please test the growing qualities of same and report and oblige,

Very truly yours,

———

A stamped addressed envelope accompanied the letter for the return of the report.

These samples were turned over to two boys in the second-year class who arranged the seed tester according to the Holden method and assumed entire charge of the testing. They will closely observe the progress of germination of the corn, set the boxes by the stove on cold nights, carry them home on

Friday nights in case there is danger of cold weather and in six or seven days prepare a report showing the percentage of kernels that germinated from each ear.

This service on the part of the school is of considerable assistance this year owing to the fact that so much of the seed corn thruout the country is low in vitality. The work of the school has also resulted in several farmers undertaking to test their own seed corn. Some of these, it was related, were farmers who have opposed the school and are not yet willing to come to it for assistance but are not so short-sighted as to refuse to make the most of valuable suggestions reaching them indirectly from the school. I inquired diligently but failed to hear of anyone who had ever tested seed corn in this vicinity before the work was taken up with the pupils in the Cecil County School.

FIELD TRIPS

The field trip is employed as another means of illustrating the work of the textbook, or perhaps it would be better to speak of it as a means of vitalizing the work of the textbook. The pupils go out into the stone quarries or highway cuts to study the formation of soils, into the fields to study corn, alfalfa, and other field crops, into home yards and cemeteries to study shrubbery and ornamental trees, and to different nearby farms to study the farm animals, the construction of buildings, methods of farming, etc.

SPECIAL EXERCISES

About once a month a special agricultural program is given on Friday afternoon between 2:30 and 4 o'clock. I had the pleasure of listening to one of these. The following is the program:

AGRICULTURAL PROGRAM

Song, School.
Recitation, ESTHER WHITE.
Essay—"Windbreaks for Fruit Orchards," LUCY YERKES.
Essay—"How to Protect Plants from Unfavorable Environment," RUTH MURRAY.
Essay—"Selecting a Seed Corn Sample," MARGARET CAMERON.
Essay—"Plant Foods," LEONARD WILSON.
Debate: "Resolved, That Tillage Is of More Importance Than Fertilizers."
    VICTOR WILSON,
    MARIS TOUCHTON, Affirmative.
    EARL ANDERSON,
    ROBERT CARUTHERS, Negative.
Essay—"Why Girls Should Study Agriculture," MABEL BARBER.
Essay—"Some Interesting Facts We Have Learned About Agriculture," NORMAN ENGLAND.
Recitation, EDNA MAYBERRY.
Song, School.

I was much surprised at the facility of expression and the originality displayed not only in the written exercises but also in the debate. I have taught college rhetoric and examined thousands of written exercises and I think I fully appreciate the difficulties confronting the teacher who has essay subjects to assign or the pupil who has a subject to select. I am also painfully aware of the prevailing stiffness, woodenness, and lack of personality and originality in the average written exercises. I was happily surprised at the almost entire lack of such symptoms in the written exercises making up this agricultural program. The pupils had written about subjects which they had made their own, subjects upon which they had personal knowledge, and they had drawn upon their personal knowledge fully as much as upon books. The debate was especially good. The debaters referred to the publications of the Maryland, the New York, and other experiment stations as authorities for their statements and also drew upon their personal observations and knowledge for illustrations. For young boys they were skillful in presentation and quick to take advantage of any weakness of the argument of their opponents.

HOW THE SCHOOL IS HELPING THE FARMERS

The service of the school in testing seed corn for farmers has already been mentioned. A corn show was held at the schoolhouse recently and seventy samples of corn were exhibited. There were a farmers' exhibit, a boys' exhibit, and a girls' exhibit. Some of the best-appearing samples at the corn show were subsequently tested and found to be surprisingly low in vitality. This, according to a statement made to me by one of the patrons of the school, was a great surprise to the farmers and led several of them directly to make application to the school to have their seed corn tested.

The school is aiding the farmers in a number of other ways. About a year ago the principal of the school made arrangements with a farmer not far from the schoolhouse to conduct a spraying demonstration to rid the farmer's orchard of San José scale. The farmer pruned his orchard according to suggestions made by the principal and authorized the latter to procure for him a spraying outfit. The principal arranged with the state entomologist to order the spraying outfit and later to come to Calvert and conduct a spraying demonstration. The state entomologist came to Calvert on Friday afternoon and gave the pupils a talk on insect friends and enemies. In the evening a public meeting was held in the local church and farmers and their families from six to eight miles around drove in to hear the lecture on spraying to combat the San José scale and other harmful insects. On Saturday morning a meeting was held in the orchard which had been prepared for the demonstration, and practically all of those who had attended the meeting on the previous evening were on hand to see the demonstration. The state entomologist prepared the lime-sulphur-salt solution, explaining carefully each step in the process and calling upon different farmers to describe what had been done. In this way he made sure that everyone present comprehended each step in the operation. When everything was ready the tank of the spraying apparatus was filled and the orchard was sprayed. It was far simpler and less laborious than many of the farmers had anticipated and as a result of this demonstration at least four orchards have been sprayed this year which had never before been treated to an application of insecticide or fungicide.

Farmers are coming to look upon the school as a sort of clearing-house for information. They call upon the principal to speak or get speakers at the farmers' club. They apply to him for pupils to take part in their institute programs. The newspapers of the county are anxious to have the pupils report news items from the school each week and a number of them print at frequent intervals essays on agricultural subjects written by the pupils. The school has tested one sample of clover seed which was found to contain dodder and trefoil, and has sent ten samples of clover seed to the United States Department of Agriculture to be tested. At the request of farmers it has forwarded samples of fertilizers to the state experiment stations for analysis. The principal is frequently asked to get seeds for teachers in the surrounding schools, to identify varieties of apples, to tell the age of horses, and to perform other little services not only for the immediate patrons of the school but for farmers living several miles beyond the home of the most distant pupil.

All of this indicates to me, not only that the Cecil County Agricultural School is fortunate in having a principal who commands the respect and confidence of the patrons of the school, but also that the most unpretentious county high school if given the right kind of teachers, teachers with the right point of view toward country life, can be of immense service, not only to the pupils who are enrolled in the school, but also to all of the patrons of the school. The home and the school can be brought together to their mutual advantage.

OPINIONS OF PATRONS OF THE SCHOOL

I talked with one or more of the parents in ten of the homes represented at the Cecil County Agricultural School. Only three of these had any unfavorable criticisms to offer and only one of the three criticized the teaching of agriculture. Nearly all commended the work of the school in unqualified terms. I will give below substantially all the opinions expressed, designating the different patrons by number.

No. 1.—The father of two girls in the school who are glad to have an opportunity to study agriculture because they expect to teach in rural districts and think that the study of agriculture will help to make their work more successful.

No. 2.—Is one of the three trustees of the local county school. Is sure that the patrons like the school better on account of agriculture being taught. Called attention to the valuable work the school is doing for the farmers by testing their seed corn.

No. 3.—Mother of a boy in the preparatory class and a girl in the second-year class. Is well pleased with the school. Her children like agriculture better than most of the other subjects taught.

No. 4.—Father of a boy in the preparatory class and a boy in the second-year class. Thinks his boys are much interested in the study of agriculture. Is sure that the school is of great value to boys who have fallen behind and would not be able to carry the full course of study. (It seems that several such boys were allowed by the principal to take agriculture and such other work as they could handle.) The school is also reaching a number of boys of limited means whose parents would not be able to send them away to school.

No. 5.—Father of a boy in the preparatory class. His boy "just loves agriculture and that is the only thing he does like." The boy could not be kept in school were it not for his interest in agriculture. The mother of this boy agreed that the school was well suited to the needs of the boys but thought that a local normal school would be better for the girls, many of whom expect to teach.

No. 6.—Father of a boy in the preparatory class and a boy in the second-year class. Has taken both boys out of school because he needs them on the farm. Criticizes the teachers for leaving the schoolhouse at the noon recess, but had nothing to say against the teaching of agriculture. Thinks it would be of great service to the boys if they could continue in school and to him if his boys could stay with him.

No. 7.—Father of a boy in the preparatory class. Is well pleased with the school. Has no criticism to offer. Is in favor of the teaching of agriculture. The only unfavorable criticisms he has heard came from people who have no children in school.

No. 8.—Father of two boys in the preparatory class. Is well satisfied. Does not know much about the school, but knows that his boys are interested in agriculture.

No. 9.—Father of a girl in the second-year class. Is dissatisfied. Was one of the original petitioners for the school but thinks it is not the right kind of school. He would prefer "an ordinary graded high school."[1] Thinks the pupils are pushed ahead too rapidly. Does not believe in teaching agriculture in the school. Thinks that the boys who want to learn how to farm should spend several years as apprentices to such farmers as he is.

No. 10.—A country physician and father of two girls in the school. Gives unqualified indorsement to the school and believes it enables many boys and girls whose parents could not afford to send them away to continue their education beyond the common schools. He goes into practically every home represented in the school and finds very little unfavorable criticism.

DIFFICULTIES AND THEIR REMEDY

Only two serious difficulties have arisen in this school and these are by no means insurmountable. The first and most obvious difficulty is one common to all rural schools, that of keeping the large boys in school thruout the year. These boys are needed on the farms and it seems impossible to get them started with the opening of school in September or to keep them after the rush of farm work begins in the spring.

The other difficulty is a financial one. The school is expensive. It will cost this year over $50.00 for each pupil. The question of expense was not raised by any of the patrons of the school with whom I talked, and it is not likely that the patrons have felt the expense. With all of the funds coming from state and county taxes, the expense of conducting a new school is not felt in any one locality.

I asked one man if his taxes had been much higher since the school had been running.

"Not a cent," was his immediate reply.

But the school board and other county and state officers charged with the administration of public funds will discover sooner or later that this school is costing more per pupil than some other larger high schools are costing and will then demand a reason, and the reason given must be pretty direct and tangible or the funds will be cut down.

Both difficulties could be easily removed by consolidating three or four of the small schools near Calvert with the primary school and the high school at Calvert. Seven public roads converge at Calvert and on these roads there are at least two schools within easy walking-distance of Calvert and several others within a radius of three miles. For the pupils living outside of a radius of one and a half miles school-wagon routes could be arranged with the greatest of ease.

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[1] The course of study of the Calvert Agricultural High School follows closely the course laid down by the state superintendent for high schools in Maryland.

With a strong consolidated school at Calvert the cost per pupil in the high school could be considerably reduced. At the same time provision for the boys who have to work on the farms could be made by offering a six-months course opening October 15 and closing April 15. A plan similar to this has been followed with gratifying success in agricultural high schools in Minnesota and Nebraska, where none of the courses are continued longer than six months in a year. The problem at Calvert would not be quite so simple because it would be necessary to provide not only the six-months special courses for boys but also the regular nine-months courses in the high school and the lower grades. It is probable that some separate classes for the special pupils would have to be organized in the fall and spring terms and this could be done by making the work of the teacher of agriculture light in the regular classes in these two terms.

But whether changes are made or not the Cecil County Agricultural School is doing good work, unusually good for the size of the school and the resources at its command. There is nothing phenomenal about it. The school has met with popular approval simply because a good teacher, trained in agriculture and familiar with the needs of the rural community, is making the most of the means at his command to train his pupils to know, use, and enjoy the common things around them on the farm.

THE JOHN SWANEY CONSOLIDATED COUNTRY SCHOOL IN MAGNOLIA TOWNSHIP, PUTNAM COUNTY, ILLINOIS

O. J. KERN

The John Swaney Consolidated Country School is located in Magnolia Township, Putnam County, Illinois, beside a country road, two miles from the small village of McNabb. The building stands near the north side of a beautiful campus consisting of twenty-four acres of timber pasture. This campus was donated by Mr. John Swaney, a farmer of moderate circumstances, a man who believes in better things for country children. His was a worthy deed in behalf of a worthy cause and should prove a suggestion and an inspiration to public-spirited farmers in other communities.

This consolidated school is an illustration of the fundamental fact that if the country people want better schools in the country for country children *they must spend more money for education and spend it in a better way. There is no other way.* It is comparatively easy for a speaker before a farmers' institute meeting to gain the intellectual assent of the average farming community to the above monetary proposition. But to go to the farmers on the morning after, and get their *financial consent* to vote bonds for a better equipment and make an increased tax levy for a better teaching force is quite a different matter. And yet this is actually what must be done, and is *what has been done* in Magnolia township.

SOME FINANCIAL DATA

Unit of organization.—The consolidated district comprises three ordinary country-school districts that were consolidated by due process under the Illinois school law.

Land area and valuation.—The consolidated district comprises fourteen sections of land and the assessed valuation under the Illinois revenue law is one hundred seventy-nine thousand dollars ($179,000). By the Illinois revenue law the assessed valuation is supposed to represent one-fifth of the fair cash value. It is upon the assessed valuation that all taxes are levied. The selling price of improved farms which comprise three-fourths of the district is $150 per acre. The selling price of the timber land which comprises the remaining one-fourth is $75 per acre.

School levy.—The school levy for the school year of 1907–8 was $2,900 for the building fund to pay bonds issued for the erection of the new building, and $3,900 for general educational purposes: securing better teachers, janitor service, etc. Twenty pupils are paying tuition at present, bringing in an annual revenue of $375. Practically all the money raised for school purposes in Illinois is raised by local taxation.

THE BUILDING AND EQUIPMENT

The school is housed in a $12,000 two and a half-story brick building, containing four recitation rooms, two laboratories, a large auditorium, two library and office-rooms, a boys' manual-training room, a girls' playroom, furnace-room and cloakrooms. All are lighted with gasoline gas generated by a plant, the reservoir of which is stored outside of the building. The laboratories are also furnished with gas from this plant. The building is heated with steam and furnished with running water supplied by an air-pressure system. The building and equipment cost $16,000.

Donations.—There are people living in this consolidated district and community who are unselfish enough and who have sufficient faith in the consolidation of schools to aid the movement by material gifts. As a consequence the beautiful campus of twenty-four acres was donated by Mr. John Swaney. County Superintendent G. W. Hunt gave a set of manual-training tools. Besides these, the John A. Kay's estate, W. G. Griffith, F. E. Smith, John Wilson, Perry Mills, W. L. Mills, and Louis Priebe gave neat sums of money. In all about $2,000, besides the grounds, were donated to the school.

TRANSPORTATION

Wagons and cost.—Two teams are employed in bringing in the children from two of the old districts. The wagons cost $175 each and are owned by the district. Distance, round trip for one wagon, is nine miles, and nine and one-half miles for the other. Drivers of the wagons are farmer boys living in the community who are in the high-school room. The horses are put in the school barn located on the campus. Each team costs $40 per month for twenty-two round trips, thus making an outlay of $1.82 per day for each wagon. As each wagon carries twenty children the cost per pupil daily is nine cents, about the price of two street car fares in a city.

Grounds.—No finer environment, perhaps, can be found for a country school. The grounds, twenty-four acres in extent, are dotted with groups of the native forest trees. It is the purpose of the district to beautify the grounds still further according to a plan prepared by the Horticultural Department of the Illinois College of Agriculture.

The teachers' home.—Four or five farmers at their own expense fitted up one of the abandoned schoolhouses for a teachers' home, thus solving the problem of a boarding-place for the teachers. The cost to the farmers was $500. The teachers pay nine dollars a month rent and hire an elderly woman for housekeeper. The teachers club together for the living expenses of the home.

Janitor's home.—An old tenant building located on the school grounds was fitted up for a janitor's home. The janitor has charge of the grounds, school building, and stables. He receives a salary of $30 per month and pays $5 dollars per month rent for his home.

COURSE OF STUDY

High school.—The course of study for the high school is given here in full. The reader will note that agriculture, manual training, and domestic art have a very important place along with the "culture" studies of the ordinary high-school course. The high-school course in the John Swaney Consolidated School is being flavored with country life and its interests.

FIRST YEAR

First Semester	*Second Semester*
English I.	English I.
Algebra.	Algebra.
Physiology.	Physical Geography.
Agronomy I, or Latin.	Horticulture or Latin.
Household Science or Manual Training.	Household Science or Manual Training.

SECOND YEAR

English II.	English II.
Algebra 10 weeks.	Geometry.
Geometry 10 weeks.	Botany.
Zoölogy.	Ancient History 10 weeks.
Ancient History.	Animal Husbandry or Household Science 10 weeks.
Drawing.	Music.

THIRD YEAR

English III.	English III.
Chemistry.	Chemistry.
Agronomy II, or Latin or Household Science.	Animal Husbandry or Latin or Household Science.
English History.	English History.

FOURTH YEAR

English IV.	English IV.
Physics.	Physics.
Household Science or Agronomy III.	Bookkeeping 10 weeks.
American History.	Arithmetic 10 weeks.
	Civics.

A brief outline of the work in manual training, household science, and agriculture is here given.

HOUSEHOLD SCIENCE

Two and one-half years' work is offered in household science. The course runs parallel with that of the manual training and a part of the agriculture, and is elective. It includes an elementary study of:

I. The composition and nutritive value of our common foods.

II. Their relation to the needs of the body.

III. The principles of cooking of different foods.

Besides this some work will be done in sewing and raffia weaving.

The first year only two hours a week are devoted to the work.

MANUAL TRAINING

Two hours a week during both semesters of the first year will be devoted to manual training. The course will be made up of a study of the construction of our common tools and of the structure of different kinds of woods. Bench work will be done; this work will occupy most of the time.

AGRICULTURE—AGRONOMY I

This course consists of a study of the seeds of our common grasses, grains, and garden vegetables. Some of the subjects noted are: the separation, identification, germination, and vitality of these seeds. The corn score card is also studied, and practical work in scoring is done. Along with this is a study of our most harmful weeds, and modes of eradicating them. Shaw's *Weeds and How to Eradicate Them* is used as a text. Bulletins from experiment stations are made use of.

AGRONOMY II—SOIL PHYSICS

In this course a study is made of the physical features of the soil. The origin of soils; different types of soils, and their characteristics; the composition of these soils and their behavior under different treatments are some of the subjects which will be considered. The work from the text will be supplemented by laboratory exercises which will occupy half the time given to the course. Laboratory work will be recorded in notebooks.

AGRONOMY III—SOIL FERTILITY

In this course the chemical constituents of the soil will be considered. The effects of the rotation of crops and the different systems of farming will be noted. Laboratory work will accompany the recitation work. Bulletins from the experiment stations will be made use of. Notebooks will be kept.

ANIMAL HUSBANDRY—ANIMAL HUSBANDRY I

This course occupies the second half of the semester and takes up the study of swine; market classes and their grades, the breeding and care of swine, and judging will be studied.

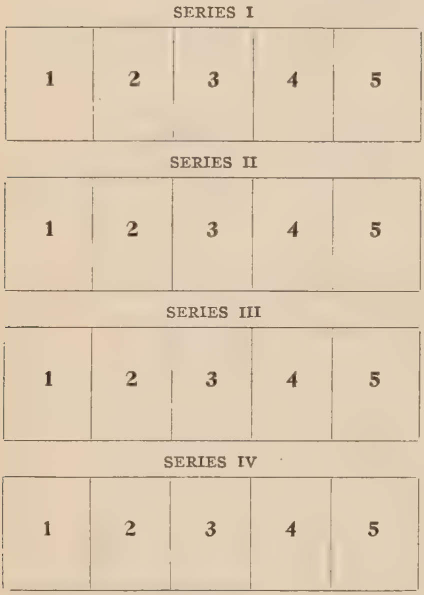
ANIMAL HUSBANDRY II

This includes a semester's work, the first half of which will include a study of the principles of feeding. The second half will be given to the judging of horses and cattle.

HORTICULTURE

This course takes up the principles of fruit growing. The following subjects respecting fruit lands are considered: Location and climate, tillage, fertilizing, planting, and incidental care. Diseases of fruits, insects which injure fruits, and spraying are also studied. Pruning receives much attention. Field trips and laboratory work supplement the texts, which are *The Principles of Fruit Growing*, and *The Pruning Book*, both by L. H. Bailey.

EXPERIMENT STATION



In order that the state may learn the needs and methods of improvement of the different large soil areas, experiment stations are established in these areas; in all there are now twenty-three. One of these stations is now being installed adjoining the campus on the east. This station contains a plat of ground consisting of six acres, and is divided into four series with five breeding plats in each series. This is to be conducted by the state, but the school will have the privilege of observing the work of the station, and will have access to the records of results.

A plan of the grounds is given here:

Series I will be planted to corn; series II to oats and clover; series III to oats; series IV to cow peas, in 1907. Plats 2 and 4 have been fertilized with rock phosphate. The others were not.

COURSE OF STUDY FOR THE GRADES BELOW THE HIGH-SCHOOL ROOM

The pupils below the high school are grouped in two rooms in the same building and are taught by two normal graduates. The teachers are experienced and trained for their work. They are paid a salary of $60 per month each for a school year of nine months. The principal is also a normal-school graduate with one year and a half additional training in the Illinois College of Agriculture and receives $100 per month. His assistant in the high school is also teacher of domestic science with special training for this work, and receives the same salary as the grade teachers.

The course of study for the first eight grades is that adopted for the country schools of Illinois, known as the State Course of Study for the Common Schools of Illinois. A copy may be obtained from C. M. Parker, publisher, Taylorville, Illinois. As far as the industrial features of this course are concerned it includes the following lines of work:

1. Construction work for the first and second grades.
2. Bench work for the eighth grade.
3. Household arts in connection with the physiology for seventh and eighth grades.
4. Course in argiculture for the seventh and eighth grades.

It is not thought necessary to give the outlines in full in this report.

THE WORK OF THE SCHOOL

The first room visited was the primary room. The room was attractive in every respect, showing that a person of taste had charge of the instruction of the little ones. This is in strong contrast to the interior of many country schoolrooms. Here was a trained teacher with but four grades, instead of the entire eight with perhaps only four or five primary pupils. These four or five beginners, in so many country schools as now organized and taught, are the very ones that are neglected.

One objection to consolidation is that country people fear the evils of a crowded graded school. This must be guarded against of course, and the unit must be small enough so that the school shall not be crowded, but remain a local school and near the people. This can be done when only three country districts are grouped together. The mistake in consolidation is bringing the children to the town school. The country school then has disappeared. To be sure, a village of three or four hundred is essentially rural, but to consolidate with a center much above five hundred in population in general will weaken the country interest and take away the effect of the school as a force in the social life of the country community.

In this primary room there were flowers on the teacher's desk and the organ. The presence of the organ showed that the teacher knew something about music and that the children were being taught it as a part of their education. The teacher could find time for it in the organization of the school with only four grades to teach instead of eight. There were not so many different recitations as in the ungraded country school, and consequently longer time for the class exercises. A beginner's class in reading was listened to with delight. This trained teacher had good methods and the primary pupils were learning to read in the right way. If the average patron of the country school could listen to this class exercise in reading and then listen to the alleged reading in many country schools as now taught, surely he would have a more open mind toward better teachers and better organized schools. A work table was at one end of the room and while one class was on the floor reciting, the smaller ones, especially, were grouped about this table seated on small kindergarten chairs and engaged in some occupation work of an educational character. This is in strong contrast to the occupations of primary children in the average country school. Too often they do nothing most of the day, either because the teacher does not know what to do with them, or cannot find time for what she would like to do.

This teacher found time to give the children instruction in form and color; hence the work in clay-modeling and water color. It is not deemed necessary here to enlarge upon this in the education of country children. It is valuable, and this teacher was securing some good results. When these pupils finish the primary grades under training of the character they were receiving, even if they never pass through the high schools, they will have a finer insight into country life, for this teacher was utilizing the material surrounding this school. The room was glorified with the autumn beauty. Many variously colored leaves from the beautiful trees on the campus were used in the schoolroom decoration for the week. Contrast this with what actually obtains in thousands of country schools.

The outlines for construction work for the month of November for the first grade, as given in the course of study referred to above, are as follows:

> Continue cutting and tearing to illustrate stories. Cut wigwams, bow and arrows, tomahawk, etc. Continue to use an occasional lesson in cutting from memory and objects. Use shoe pegs and tooth picks in arranging design on desk. Fold pyramid, Thanksgiving basket. Combine house, square prism, and pyramid in making church. Fold Mayflower, cradle, and lanterns.

The November outline for construction work in the second grade is as follows:

> Let the cutting and constructive work relate directly to the Thanksgiving work. Free cutting of turkey, pumpkin, Indian, Puritan, etc. Arrange these to form a complete picture. Make Puritan cradle, bonnet, canoe, wigwam, quiver, bow and arrow, moccasins, candle stick, lantern, Thanksgiving basket. Present a completed exercise and have pupils construct one like it without direction from the teacher. Teach pupils to understand the drawing of a pattern when drawn on the board. This will lead to the translation of a working drawing. Discriminate between a pattern and a working drawing. Plan suitable decorations by cutting from the paper desired units to be repeated in borders or surface designs.

The exhibition of the work the pupils had done, as shown on the walls, reveals what the country children can do if they have wise educational leadership. The children in this room were having their training related to their environment. To do this there must be a trained teacher with a sympathetic insight into country life. This teacher seemed to have the insight and also the outlook. Such work is possible in the one-room country school, of course, if the right kind of a teacher is there; but with the consolidation of three small schools, or four at most, there are decided advantages. There is more likelihood of getting better teachers; somewhat larger classes can be formed, thus getting the enthusiasm that usually comes with numbers; better equipment is assured; larger school grounds are a certainty and a necessity; the social life of the child is enriched; and best of all, the school of three or four districts consolidated into one, out in the country, is still a local country school, and with telephones and transportation is nearer to the activities of all the people of the larger unit than was the one-room country school of twenty-five years ago to the people of the then smaller unit. There is danger in making the consolidated unit too large. The writer pleads guilty to the fact of only a limited experience in consolidation. But it is his judgment that for the average township of six miles square with ten one-room country schools, instead of combining all ten near the geographical center, or with a town school of two or three thousand population not at the center, the farm would be better served, country life preserved, and agriculture spritualized, if the ten country schools were consolidated into three groups according to conditions, with the high-school work attempted in but one, and that school located as near as possible to the center of the township, the central school doing high-school work, having an additional force of instructors. To this central school all the older pupils could go who have finished the eighth grade of the three consolidated schools. Consolidation must come, but it must come in response to natural needs to suit local conditions. This is true at the John Swaney Consolidated School in Magnolia township. It will cost more than the ordinary one-room school. It should cost more for it gives better service.

The grammar-room was visited where are the fifth, sixth, seventh, and eighth grades under the direction of a teacher, a graduate of a state normal, a person trained for the specific work of the teacher. A recitation in United States history was listened to. The impression produced on the listener was that the academic work was being well done. Here was a class in history taught by a person who knew history and its methods of presentation. There was time for a recitation. The pupils, under the questioning of the teacher, revealed whether they had mastered the lesson or not, and in the character of these statements revealed the method of work. There was clean-cut, clear, definite work in the ordinary academic subjects of the country-school course. There was an objective point and the pupils were shown how to arrive. Contrast this with the average country school taught by the average teacher with from twenty-five to thirty-two daily recitations, and consider how much definite work could be expected from a recitation period of seven minutes in history or geography? That there are one-room country schools in which good work is being done under such conditions only emphasizes what better results could be obtained under more favorable conditions. And the favorable conditions are here in this consolidated school, viz., a trained teacher; better organization; better equipment. These are fundamental in making better country schools.

The agricultural work done in this grade was according to the outlines given in the state course. The visitor was shown some drawing work of the pupils where an ear of corn was the subject. There was a collection of short papers on thoroughbred stock, written by pupils, both as the result of observation and reading. The history of course would come from reading, while economic facts, etc., would come from talks with fathers and those owning such breeds as were under discussion. Thus two school studies, language and drawing, at least, were being vitalized by the farm. The pupils were studying the score card for judging live stock and corn. This in an elementary way, of course, leaving a more scientific study for the high school. Pupils had made a collection of leaves which were studied at the proper time. There was good water-color work being done by pupils of this room. Thus these country boys and girls were getting fundamental ideas of harmony of color and symmetry of form based on the life around them. Why? Because this is a necessary part of their education and there was a trained teacher here who could give the necessary instruction.

The outlines in agriculture as given for the month of November for the seventh, and also for the eighth grade, here follow:

MONTH OF NOVEMBER—SEVENTH GRADE

1. What insects have damaged the crops of the year in your district? Describe the damage and the extent of the loss.

2. Stick a pin into a rotten apple and then into a sound one. Put the sound apple away and look at it every few days. Record what you find. Place another sound apple which has been treated in the same way in a refrigerator. Examine frequently and compare its condition with the apple kept in the temperature of the outside air. Explain the differences. What do the results suggest?

3. Make a map of the farm on which you live or of some farm in the district.

4. What farm, garden, and orchard plants reproduce only from seeds? What ones by some other method than by seed? What ones will not produce valuable varieties (not "come true") by seed? (Read *Farmers' Bulletin No. 157.*)

5. Fill one fruit jar with sand, another with loam, both free from sticks, stones, or other foreign matter; put on the cover loosely without rubber. Set in a warm place until well dried out. Weigh and determine the amount of soil. Then turn the cans bottom up in a dish of water. Note the comparative rapidity with which water will rise on the soil within the cans, when it has reached all the soil of each. Then dry them out again slowly, see which soil retains its moisture longest, and compute the amount taken up by each. (Read Goodrich, *First Book of Farming*, chapter iv.)

6. On how many days last year did the sun shine?

HOME WORK

7. Find how much a horse will eat in a month, and what will it cost to keep him a year. (Read *Farmers' Bulletin No. 22.*)

8. Where does a spavin grow on a horse? Sidebone? Splint? Curb? Thoropin? What does "knee sprung" mean? Ask a horseman. (Read McIntosh, *Diseases of Horses and Cattle*, chap. xix.)

9. Find what is a day's work at the following: Plowing; cultivating corn; husking corn on the hill; husking from the shock; cutting wheat with the binder; shocking wheat; threshing; cutting hay; digging a ditch three feet deep for tile; digging a ditch three and one-half feet deep for tile.

10. Make an inventory of all the machinery used on the farm on which you live, with the cost of each piece.

MONTH OF NOVEMBER—EIGHTH GRADE

1. Name some insects injurious to crops which have (*a*) *biting* mouth-parts; some insects which have (*b*) *sucking* mouth-parts. What kind of treatment is used to destroy the first class of insects? What for the second class? (Read Bailey, *Principles of Agriculture*, pp. 166–69.)

2. What insect pests cause greatest loss to the apple growers in your section? Write in your notebooks a description of one of these pests. (Read *University of Illinois Agricultural Experiment Station Bulletins Nos. 108, 114,* and *Circular No. 107.*)

3. Weigh a bushel of ears of corn just as it runs in husking. How many ears in the bushel? Find the length of each ear. What is the average length of all the ears? Select the best twenty ears in the bushel. What is their average length? Find the circumference (measured at one-third the distance from butt to tip) of these twenty ears. What is the average circumference of these ears? What is the ratio of the average circumference to the average length? Select the best ten ears and the poorest ten ears in the bushel. Weigh and record the weight of each ear. Shell each ear and weigh its cob. The weight of ear less the weight of its cob equals the weight of grain. Find the percentage of weight of grain to weight of ear in each of the ears in these two sets of ten. In what ears, best or poorest, is the percentage highest?

4. What are the symptoms of colic in a horse? What are the common causes for colic in horses? What is the proper treatment for a horse suffering with the colic? (Read McIntosh, *Diseases of Horses and Cattle*, pp. 50–56.)

5. What is meant by a "balanced ration" for a dairy cow? Why is such a ration important? What foods ordinarily fed to dairy cows are especially rich in carbohydrates?

What in fats? What in protein materials? What would be a properly balanced daily ration for a cow giving thirty pounds of milk a day? (Read *Farmers' Bulletin No. 22.*)

6. Select a young fruit tree (apple, plum, or cherry) for study. By the use of a step-ladder carefully examine all of the branches. Can you tell by any marks on the twigs the amount of growth each branch has made during this season? What is the greatest length in inches of this year's growth made by any twig? Does the rate of growth vary on different parts of the tree? Explain as well as you can why this is so. Make a careful drawing of this tree. (Refer to Bailey's *Pruning-Book.* Read *Cornell Nature-Study Leaflet XXXI.*)

7. How many pounds of hay and how many pounds of grain per day are required for a 1200-pound horse doing ordinary farm work? Would a heavier horse require more? Why? Is less required when the horse is not working? Why? Would it be as well to feed *all* hay, or *all* grain? Why? Should a horse be given water *before*, or *after* feeding? Why? (Read *Farmers' Bulletin No. 22.*)

THE HIGH SCHOOL

This room was visited in the afternoon and a recitation in agronomy was the first exercise. The first- and second-year classes were combined for this particular recitation. Corn was the subject of study with Reid's Yellow Dent as the particular variety. Each pupil had brought corn from home and they were studying samples according to the Score Card adopted by the Illinois Corn Growers' Association. The principal of the school called on each member of the class to state which ear of the number he had brought had the best tips, the best butts, and the various items as given on the score card. The pupils were required to give a reason for their answers. The answers revealed that some observation and thinking had been done. Shapes of ears, kernel shape, yields or variety, etc., were discussed. While this was going on, two boys in the soil-study class were testing soils for loss of organic matter. Types of both the cropped and uncropped soils were being used for this test. The gasoline plant in connection with the building furnished the heat for the experimental work as well as the domestic science work. The air-pressure water tank in the basement furnished water necessary for laboratory purposes.

In the regular science work an earnest effort was being made, with success, to correlate with the environment of the pupil. Thus the zoölogy correlated with fall agriculture. Emphasis was being placed on the life-history of insects as related to the farm, their economic value, etc. The principal took the pupils to the fields and made an examination of corn roots to find the insects injurious to corn. A new insect was discovered and sent to the College of Agriculture at the University of Illinois, for identification. In addition to the regular text on zoölogy, use was made of the United States entomological bulletins and the very valuable reports of Professor Forbes, who, under special appropriation of the Illinois legislature, is making most important investigations with reference to insects injurious to the Illinois farmer. No more valuable bulletin in that particular subject has been printed than the one by Professor Forbes on *Insects Injurious to Indian Corn.* The future farmers in this school were having this information brought in as a part of their science work, in economic zoölogy. This could be done in this country school, with a high-school course flavored with country life and its interests, for two reasons mainly: first, the school was so organized and equipped that it was possible to relate the laboratory and classroom with the immediate environment of the pupils; second, there was a trained teacher with a sympathetic insight into the conditions of country life, and a realization of the importance of vitalizing these conditions in the training of country children; a teacher who vitalized his science work with a study of environment; a country high-school science teacher who did not put the emphasis on the oyster or the lower forms of marine life.

Likewise with botany: the pupils did have notebooks in their science work; they did make drawings of flowers, plants, and insects; they did mount specimens, etc. But they went farther. They planted seeds at school and home and made a study in an experimental way to discover the relations of plants to soil, water, climate, etc.

In the soil work the instruction was practical and scientific. In this subject, especially, one could note how this high school was putting these farmer boys in touch with the great soil work carried on by the Illinois College of Agriculture under the direction of Dr. C. G. Hopkins. In classroom and laboratory, use was being made of King's *The Soil*, Mosier's *Soil Physics* (this a laboratory manual), and bulletins from the Illinois experiment station. Last but not least, the school had access to the experimental plot of six acres adjoining the school campus. The Illinois College of Agriculture has a ninety-nine year lease on this small field and under the direction of the faculty of this college some valuable experimental work is being carried on, not only in soil improvement, but in crop rotation, farm practices, etc. This being close to the school, as was stated, it becomes a valuable out-door laboratory for both the school and the farmer of the consolidated district. The three and one-half years' work in agriculture are made just as scientific as the physics or chemistry work. The horticulture work is made as scientific as the botany work in the ordinary high school. Thus in economic entomology, worms working on vegetation were brought to the schoolroom and placed in jars. Cages were shown that had been made by the pupils for the larva, and as soon as the larva had passed into the pupa state this pupa was put away in a safe place for spring study. Some specimens were being preserved in formaldehyde. In the agronomy work a collection was made of the worst weeds on the farm to be studied in connection with the text. There were small bottles of seeds. A collection especially noted, collected by a boy, contained the following injurious weed seeds: Spanish needles, pepper grass, mustard, plantain, tickle grass, giant rag weed, fox tail, rag weed, wild parsnip, lamb's quarter, wild sunflower, horse mint, sand burr, cockle burr.

The building was well equipped with the necessary laboratories. One member of the school board is a graduate of the University of Illinois and a farmer. A second is a graduate of the Central Illinois State Normal School and also a farmer. The third member of the board is an intelligent farmer, and their wisdom is strikingly shown in the way they have equipped the school building for doing good work. This is possible in a consolidated school that fits local conditions; and lastly, a consolidated school with a board and community actuated by liberal ideas and right ideals in the equipment of a building and the employment of trained teachers to manage the educational plant for training boys and girls in the life they now live.

Shopwork in manual training was not in progress at the time this visit was made, but the visitor did see the domestic-science work in the chemistry laboratory. All years of the high school were represented. Cream of wheat was the especial subject of study for the day. The girls were getting a training in food values, chemistry of foods, preparation of food for the table, etc. The teacher had training for this special work, and in addition taught Latin and English as a part of her regular high-school work. The principal taught agriculture, manual training, science, and some mathematics. The literature, language, and some history were taught by the domestic-science teacher. These country girls were having their school work related to the home life in a most helpful manner.

Some of this may be done in the one-room school as now organized, provided the proper equipment and a properly prepared teacher are furnished, but it will then be a very expensive school, based on the day's average attendance. Even thus vitalized it will still lack the social enrichment possible in the larger unit. And it is the larger social participation that must enrich the life of country people. This social efficiency must come through education. The ideal conditions seem to obtain at the John Swaney Consolidated School. The unit is not so large as to take away the local character of the school. It is still a country school beside a country road. And the work of the schoolroom is not entirely industrial. It seems that a right balance of educational values is being maintained.

A few schools like this one are needed, scattered over the country, to show what is really possible for thousands of farming communities. With that there must be some medium to let those communities know what is going on out on the front line of country-school improvement. That medium, whatever it is, must be a medium thoroly in sympathy with country life and its interests and occupations.

THE CONGRESSIONAL DISTRICT AGRICULTURAL SCHOOLS OF GEORGIA

O. J. KERN

Introductory.—No attempt here will be made to set forth an argument for or against the congressional district agricultural school. The school man in Ohio, a state which it is claimed now has one-tenth of the total number of high schools in the United States, may advocate the introduction of agriculture, manual training, and domestic arts into the course of study for these high schools and thus bring industrial education much nearer to all the boys and girls on the farms than could be done in one secondary school for the entire congressional district. The school man in Illinois may claim that consolidation of country schools and the already existing small high schools in towns and villages furnish the type of schools suitable for industrial education in Illinois, while the Wisconsin school man may claim that in addition to the consolidated school and the existing town and village high schools there is needed the county school of agriculture as a distinct type of the secondary school for country communities. This report attempts to settle none of these contentions. The data here given for the congressional district schools of Georgia were obtained by the writer as a result of a personal visit to two of the schools in April, 1908. Conditions in Georgia differ very much from the conditions in Ohio, Illinois, and Wisconsin. The high school has no legal standing in Georgia, for by constitutional restriction education in that state so far as state aid is concerned, below the state university, is limited to the first seven grades of the elementary school. The educational leaders hope soon to have the constitutional restriction removed. In the meantime, considering the lack of sufficient number of local high schools and considering also that the one-room country school as now administered does not and cannot furnish all the training demanded by the boys and girls living on the farm, the congressional district school of agriculture comes as an inspiration and a positive help. Two things need to be guarded with respect to these schools, and of this the educational leaders of Georgia are fully aware: first, that the school of agriculture, manual training, and domestic art, does not lose its industrial flavor and become an ordinary high school preparing for a liberal arts course in some college where the trend is away from the farm; second, that the state legislature must not fail to support the splendid foundations thus laid so that in actual farm practices, laboratory, and shopwork, as well as academic work, these schools may meet the fondest expectations of those who have toiled so earnestly to establish them. The era of settlement has passed and now has come the period of development. It is for the educational interests of Georgia to show to the country the value of this particular type of school for the farm and the country home.

The schools visited were those of Americus and Monroe. Before an account is given of what was seen, here follows the act of the legislature establishing those schools, and the tentative course of study adopted for them, so that a clearer idea may be obtained with respect to the relation of the congressional district agricultural schools to the state school system, and of the work to be undertaken in them. Note the relation to the State College of Agriculture. The act creating these schools passed the legislature in August, 1906.

A BILL

To be entitled an Act to provide for the establishment and maintenance of schools of agriculture and the mechanic arts in the respectiv econgressional districts of this state.

SECTION I. Be it enacted by the General Assembly of the State of Georgia, and it is hereby enacted by authority of the same, That the governor is hereby authorized to establish and cause to be maintained in each congressional district of the state an industrial and agricultural school in accordance with the further provisions of this act. Said schools shall be branches of the State College of Agriculture, a department of the University of Georgia. The general board of trustees of the university shall exercise such supervision as in their judgment may be necessary to secure unity of plan and efficiency in said schools.

SEC. 2. Be it further enacted, That all fees received from the inspection of fertilizers, oils, and all other inspection fees received by the Department of Agriculture in this state, after the present year, over the expenses of such inspection, and after any portion of said fund otherwise appropriated, shall be used as a fund for the purpose of establishing and maintaining such schools, and, as far as practicable, be equally divided between such schools, and the said governor is authorized to pay to the trustees of said schools, from time to time, their respective portions of said fund.

SEC. 3. Be it further enacted, That the governor is authorized and directed to appoint from each county in the respective congressional districts one trustee for the school to be established in such districts; such trustee to hold office for the term of six years from his appointment and until his successor is appointed, and that the trustees selected in each district shall constitute a board of trustees for the school in said district, with power to control the management of said school, and make rules and regulations for the same, subject to the provisions of this act.

SEC. 4. Be it further enacted, That the governor shall be authorized to receive from any county, or any of the citizens thereof, a donation of a tract of land in such county, not less than two hundred acres, on which to locate a school for the district in which such county is situated, together with any additional donation in the way of buildings and money; and if there are two or more offers of such donations, the governor, with the aid of the trustees of such school, shall select which to accept, taking into consideration the title, value, the centralness of location, accessibility and suitableness in any respect for the purpose intended, and upon the acceptance of any such donation, and the execution of proper deeds vesting title in the trustees, within a reasonable time, the school for said district shall be established on the tract selected, with the right to select another locality should such deeds not be made to the satisfaction of the governor. And if no such donation is made or perfected in any district within one year from passage of this act the pro rata share of the fund going to said district shall go into and be prorated in the regular common school fund in said district.

SEC. 5. Be it further enacted, That the principal of said schools shall, under the direction of the trustees, keep an account of all receipts from the sale of the products of the farm or shops which are not consumed in said school, and one-half of said receipts for each year shall be set aside as a fund to pay the students. That each pupil, having performed to the satisfaction of the principal his duties for an entire school year, shall receive his pro rata of said fund, the amount going to each pupil not to exceed one hundred dollars, and the balance, if any, to be replaced in the general fund of the school.

SEC. 6. Be it further enacted, That the course of studies in said schools shall be confined to the elementary branches of an English education, and practical treatises or lectures on agriculture in all its branches, and the mechanic arts, and such other studies as will enable students completing the course to enter the Freshman class of the State College of Agriculture on certificate of the principal.

SEC. 7. Be it further enacted, That the faculty of such schools shall consist of the principal, who shall be an intelligent farmer; one superintendent and instructor in farm work; one intelligent mechanic, who shall direct and instruct in all mechanical work in and out of the shops; one practical instructor in care of stock and dairying; one instructor in English, and such other instructors and assistants as the funds of the college will permit. That the trustees may dispense with and combine the duties of any of the above, as necessity may require, and it shall be the duty of said instructors in said school to co-operate in conducting farmers' institutes and farm and stock demonstrations in the several counties of their respective districts.

SEC. 8. Be it further enacted, That after the first buildings are erected, before the opening of such schools, which shall be only such as are absolutely necessary for temporary use, all work on, in, and about said schools, or on the farm, or on or in the barns and shops connected with said schools, whether it be farming, building, care of stock, or work of whatever kind, shall be performed exclusively by the students of said schools, under such regulations for the proper division and alterations in such work as may be provided by the trustees.

SEC. 9. Be it further enacted, That tuition in said schools shall be free, and the trustees may limit the number of students from time to time, according to the capacity and means of the institution, and shall make such rules of admission so as to equalize, as far as practicable, the privileges of the school among the counties according to population. And the trustees may defer the actual opening of the school until such time as may be necessary to prepare reasonably proper facilities and equipment for beginning the same, in the meantime accumulating for said purpose the funds going to said school which may be received from the rent of any portion of the property; but it is made the duty of said trustees to open said school, even though it may have to be done at first on a limited scale, as early as practicable, and afterward extend its operations as circumstances may permit; and the trustees are authorized to rent to the best advantage, from time to time, any portion of the property of said school not required for the purpose of said school.

SEC. 10. Be it further enacted, That all laws and parts of laws in conflict with this Act be, and the same are, hereby repealed.

LOCATION OF AGRICULTURAL SCHOOLS

The following are the accepted bids for the district agricultural schools of Georgia. The total value of the bids is nearly $850,000, and the rejected bids amount to fully as much. It is a splendid tribute to the progressive spirit of the Georgia farmer, and to the wisdom of the plans of the proposed schools.

First District.—Statesboro. Sixty thousand dollars cash; 300 acres of land, $20,000; electric lights, water and sewerage, $20,000.

Second District.—Tifton. Donations same as first district, except market value of land, probably $20,000.

Third District.—Americus. Forty thousand dollars cash; 300 acres of land, $20,000; lights, water and sewerage, $5,000.

Fourth District.—Carrollton. Thirty thousand dollars cash; 300 acres of land, $15,000; lights and water, $15,000. (I understand that at least $10,000 more cash will be added to this donation.)

Fifth District.—Monroe. Thirty-one thousand dollars cash; 250 acres land, $10,000; lights and water, $15,000.

Sixth District.—Barnesville.—Fifty-one thousand dollars cash; 300 acres land, $20,000; lights and water, $15,000.

Seventh District.—Powder Springs. Academic building and boys' dormitory, according to architect's plans, $28,000; 240 acres land, $20,000; lights and water, $15,000.

Eighth District.—Madison. Forty thousand and five hundred dollars cash; 300 acres land, $20,000; lights and water, $15,000.

Ninth District.—Near Clarksville, $25,000 cash and 300 acres of land.

Tenth District.—Sparta. Forty-seven thousand dollars; 250 acres land, $10,000.

Eleventh District.—Douglas. Fifty-five thousand dollars cash; 300 acres land, $20,000; lights, water and sewerage are valued at about the cost of same, and the land is estimated at the market value.

RESOLUTIONS OFFERED BY GOVERNOR JOSEPH M. TERRELL BEFORE THE BOARD OF TRUSTEES OF THE UNIVERSITY OF GEORGIA, JANUARY, 1907, AND ADOPTED

Whereas the act providing for the establishment and maintainance of an Industrial and Agricultural School in each Congressional District declares in section 1 that "the general Board of Trustees of the University shall exercise such supervision as in their judgment may be necessary to secure unity of plan and efficiency in said schools."

And whereas section 6 of said act prescribes "that the course of study in said schools shall be confined to the elementary branches of an English education, and practical treatises and lectures on agriculture in all its branches, and the mechanic arts, and such other studies as will enable the students completing the course to enter the Freshman class of the state college of agriculture on certificate of the principal."

And whereas the paramount object of these schools being the education of the pupils, both theoretically and practically, in the sciences of agriculture and the mechanic arts, and preparing them for citizenship, a curriculum should be prescribed that will include only those studies which are in their nature and tendency contributory to that end. Therefore, BE IT RESOLVED, *First*, that the minimum age for entrance into said schools shall be fixed at fourteen years for males and thirteen years for females, and that there be an equitable division of the dormitory space among the counties of the district as provided in section 9 of the act, and should all the space allotted to a county be not applied for at the beginning of a scholastic year, such unused space may be allotted for such year to any other county.

Second, That the course of study be limited to four years' work, including at least one year of common-school or elementary studies, and that the scholastic year be forty weeks. The school day to be so arranged as to assure at least three hours a day of class-room work in agriculture and related sciences, English, mathematics, and history, and at least three hours a day on the farm or in the laboratory or shop, the hours in actual farm work to be regulated by the exigencies of the farm; the program being such as to provide for alteration of the work and study among the classes morning and afternoon, thereby securing continuous operation of the farm and shop. The female students to be provided with a practicable and comprehensive course in domestic science, sewing, household economics, and kindred studies.

Third, That the Principals of said schools shall provide from time to time for such lectures on agriculture and related subjects as the funds of the school will permit, and shall also provide for short courses for adult farmers in so far as the same may not conflict with the other work of the schools.

Fourth, That for satisfactory work done on the farm and in the shops students may be allowed fair compensation by the principal, per hour, or per piece, to be credited to the dormitory expenses of the students. In addition thereto students shall receive their pro rata of the net profit arising from the farm as provided in section 5, but the same shall be credited to their dormitory and other school expenses.

Fifth, That one-fourth of the students, or such number as the principal may determine as necessary to continue the operation of the farm and shop, be required to remain on the farm during vacation, and for work required during this time the students be given fair compensation. Students of the third and fourth year may be given acre plots for individual cultivation, or small farms for supervision, the profits to be their own, the same, however, to be first applied to payment of their dormitory or other expenses.

Sixth, That the State Farmers' Institutes Director shall arrange farmers' institutes at these schools and secure the help of the faculties thereof in conducting institutes in other counties; that the Professor of Forestry in the State University be authorized and directed to aid the several schools in caring for the forests on the farms; that the Professor of Secondary Education be required to give such aid as is consistent with his other duties, and that the other professors of the State Agricultural College be authorized to co-operate in the work of these schools and that of their respective departments.

Seventh, That the principal of each school shall make an annual report to the board of trustees of his district, showing attendance, program of hours, income and expenditures, and furnish a copy for publication in the annual bulletin of the State Agricultural College.

REPORT OF COMMITTEE TO BOARD OF TRUSTEES

June 15, 1907

To the Board of Trustees, University of Georgia:

GENTLEMEN: The committee appointed at your meeting in January to recommend a course of study for the District Agricultural Schools of Georgia beg leave to submit the following report.

The tentative curriculum submitted to your board last January by Professor Stewart, being the joint work of him and of Professor D. J. Crosby, of the Department of Agriculture at Washington, was submitted to leading agricultural professors throughout the Union and criticisms asked. Many letters commending the general plan were received. Some minor suggestions were made. After receiving all the data possible your committee met in Atlanta January 22 and went over in detail every item of the proposed curriculum—Professor Coon of Georgia Tech was by resolution of the committee elected a member thereof. All the members of the committee were present, as well as Professor Crosby and two other experts from Washington and a committee from the Farmers' Union. Acting under your instructions optional foreign languages were eliminated from the original report. A few other minor changes were made. The following resolutions were passed at this meeting:

Whereas, Eleven district agricultural schools are soon to be organized in the state of Georgia; therefore be it resolved:

1. That the course of study presented by Professor Stewart be adopted.

2. That for the first year it is deemed inadvisable for the schools to be overcrowded with too large a group of students; that it would probably be wise for the board of trustees to limit the attendance at first in order that confusion and mistakes may be avoided and that time may be given the principals and teachers to perfect the organization of the schools.

3. That for the first year it is recommended that the work of the schools be restricted to the courses of study outlined for the first and second years, except that more advanced work be given in the practical subjects where possible.

4. That while it should be the primary aim of the agricultural schools to train students to an appreciation of the farm and to develop in them a love for farm life, yet it should also be the aim of the schools to train students to become useful citizens as well as good farmers and housewives. The home life of the students should be carefully supervised by the principals and members of the faculty, who should provide such interests outside the regular school work as will assist in rounding out the characters of the young men and women. At all times the principal of each school should consider it one of his primary duties to maintain a high standard of character and of conduct among the student body.

5. That the requirements for graduation may be strict, but that the requirements for entrance should not be difficult, especially for older students, who need the practical work and yet may be unable to stand a difficult examination.

6. That libraries be established, and reading rooms arranged as soon as possible, and that special efforts be made to secure books and periodicals relating to agriculture, literature, history, biography, and books by Georgians and about Georgia's history and resources; and further that special efforts be made to secure and classify and keep in durable form the pamphlets and books on agriculture printed for free distribution by the United States government, by the various state experiment stations, and by the university and agricultural colleges.

7. That the following persons, Dr. Soule, Professor Crosby, Professor Stewart, Professor Coon, and Professor Parks, be requested to arrange and submit a list of books suitable for the libraries of the agricultural schools.

8. That the following persons, Dr. Soule, Professor Crosby, Professor W. D. Smith, Professor Stewart, and Dr. Hardman, be requested to serve as an advisory committee to

he various boards of trustees for the purpose of recommending suitable equipment for laboratories.

In addition to the above, the following resolution was passed at the request of R. F. Duckworth, president of the Farmers' Union:

"We recommend that the law be strictly enforced which requires the teaching of the elements of agriculture in the common schools, and that this teaching be done in connection with school gardens, and further that the normal schools of the state be encouraged in their efforts to increase their facilities for instruction in elementary agriculture to those who are preparing to teach."

On the 23rd the presidents of all the district boards of trustees, the principals that had been elected, the governor-elect, the state school commissioner, the commissioner of agriculture, and a committee from the Farmers' Union met with your commiteee to hear the proposed curriculum, and if need be to offer suggestions before its final adoption as the report of your committee.

After a full and careful discussion, morning and afternoon, of every phase of the report, the joint body unanimously adopted the tentative curriculum herewith submitted.

We recommended that $75.00 be appropriated for the immediate publication in bulletin form of the report of your committee together with other information relating to said schools as will be of value in their organization.

We trust that the board will see fit to recommend the report of your committee for adoption by the several boards of trustees of the district agricultural schools.

L. G. HARDMAN, *Chairman*
M. M. PARKS, *Secretary*
J. M. TERRELL
D. M. HUGHES
A. J. McMULLAN
J. S. STEWART
A. M. SOULE
J. S. COON

Adopted by the Board of Trustees June 19, 1907.

CONDENSED STATEMENT OF TENTATIVE COURSE OF STUDY FOR DISTRICT AGRICULTURAL SCHOOLS OF GEORGIA

The work is arranged by terms as well as years so that a young farmer may enter at the time when the particular subjects desired are being taught, and stay as long as he may wish. The principal should allow such academic work for these special students as will meet their needs, allowing as much time as deemed necessary for the intensive work in agricultural subjects selected. In this way the school and curriculum can be made to fit the boy desiring three months, one year, or four years. No one will be allowed to enter who does not take the required practical work. If only literary work is desired, they should go elsewhere.

First Year—Fall Term

CLASSROOM INSTRUCTION

(Numerals refer to number of recitations a week.)

English—Grammar (3), Composition (1)—all.
Mathematics—Arithmetic (4)—all.
U. S. History—The period of discovery (3)—all.
Geography—Political Geography (3)—all.
Penmanship and Spelling (2)—all.
The Plant—Composition, structure, physiology (3)—all.

PRACTICUMS, OR LABORATORY, FIELD, AND SHOP INSTRUCTION

(Under the immediate instruction of teachers.)

Plant Laboratory—3 hours a week. Study of a number of plants.

Plat Work—3 hours a week. Practice with small gardens—Elective for girls—boys.

Farm Mechanics—3 hours a week. Free Hand and Elementary Drawing—boys and girls.

Sewing—3 hours a week. Stitches, Plain Sewing—girls.

MINIMUM REQUIRED WORK

(Under the general supervision of teachers concerned.)

Farm—9 hours—boys.

Home—9 hours—girls.

NOTE.—Assignments of all farm and home work will be made under direction of the principal so as to cover all kinds of duties, varying with season, weather, location, etc., to be changed from time to time, so that every pupil will become familiar with all the farm operations. The instruction of any term is applied and inforced throughout the course.

FIRST YEAR—WINTER TERM

English—Grammar (3), Composition (1)—all.

Mathematics—Arithmetic (4)—all.

U. S. History—The National Period (3)—all.

Geography—From Physical Geography standpoint (3)—all.

Spelling and Penmanship (2)—all.

The Plant—Reproduction, environment (3)—all.

PRACTICUMS, OR LABORATORY, FIELD, AND SHOP INSTRUCTION

(Under immediate instruction of teachers.)

Plant Laboratory—3 hours a week. Work in plants continued—all.

Plat Work—3 hours a week. Continue garden work—boys.

Farm Mechanics—3 hours a week. Drawing, bench work, farm carpentry—boys.

Cooking—3 hours a week. Plain and fancy cooking, care of dining-room—girls.

MINIMUM REQUIRED WORK

Farm Work—9 hours a week—boys.

Home Work—9 hours a week—girls.

Work assigned as in Fall Term.

For full details of course see accompanying report of work.

FIRST YEAR—SPRING TERM

CLASSROOM INSTRUCTION

English—Grammar (2), Composition (2)—all.

Mathematics—Arithmetic (4)—all.

U. S. History—The Civil War. Reconstruction, to the present time (3)—all.

Geography—Commercial (3)—all.

Spelling (2)—all.

Soils—Nature, function, origin, etc. (3)—boys.

PRACTICUMS, OR LABORATORY, FIELD, AND SHOP INSTRUCTION

Soil Laboratory—3 hours a week. Collect samples of soils and test, classify, and name.

Plat Work—3 hours a week. Continue garden work.

Farm Mechanics—3 hours a week. Drawing, bench work, farm carpentry.

Sewing, Laundering—3 hours a week. Machine sewing, patching, etc. Instruction in theory and practice of laundering.

MINIMUM REQUIRED WORK

Farm Work—9 hours a week.

Home Work—9 hours a week.

Work assigned as in Fall Term.

SECOND YEAR—FALL TERM

CLASSROOM INSTRUCTION

English—Composition and Rhetoric (3), Classic Readings (1).

Mathematics—Farm Arithmetic and Farm Accounts (4).

Ancient History—The Nine Eastern Nations (3).

Vegetable—Flower, Fruit Gardening, and Forestry (2).

The Soils and Fertilizers—Classification of Soil and Use of Manures and Fertilizers (3).

PRACTICUMS, OR LABORATORY, FIELD, AND SHOP INSTRUCTION

Soil Laboratory—3 hours a week. Experiment with soils, study systems of farm crops.

Plat Work—3 hours a week. Garden and fruit, vegetables.

Farm Mechanics—3 hours a week. Plans of farm structures, farm carpentry.

Sewing—3 hours a week. Draughting, cutting, making garments.

MINIMUM REQUIRED WORK

Farm Work—9 hours a week.

Home Work—9 hours a week.

Work assigned as in first year.

SECOND YEAR—WINTER TERM

CLASSROOM INSTRUCTION

English—Composition, Rhetoric (3), Classic Readings (1).

Mathematics—Algebra (3), Farm Arithmetic (1).

Ancient History—Greece (3).

Vegetables—Fruit Trees and Forestry (2), Home Science (2).

Farm Crops—Boys (3).

PRACTICUMS, OR LARORATORY, FIELD, AND SHOP INSTRUCTION

Plant Laboratory—3 hours a week. The botany of farm crops, judging, grafting.

Plat Work—3 hours a week. Manures, winter crops, care of forests.

Mechanics—3 hours a week. Farm carpentry.

Cooking—3 hours a week. Study of dietaries, table serving, plan meals.

Work assigned as in previous terms.

MINIMUM REQUIRED WORK

Farm Work—9 hours a week.

Home Work—9 hours a week.

Work assigned as in previous terms.

SECOND YEAR—SPRING TERM

CLASSROOM INSTRUCTION

English—Composition, Rhetoric (3), Classic Readings (1).

Mathematics—Algebra, through Equations (3), Farm Arithmetic (1).

Ancient History—Rome to Charlemagne (3).

Vegetable—Flower, Fruit Gardening (2), Home Science (3).

PRACTICUMS, OR LABORATORY, FIELD, AND SHOP INSTRUCTION

Plant Laboratory—3 hours a week. Study early fruits and vegetables.

Plat Work—3 hours a week. Study of field and garden crops on farm. Spraying and other orchard and garden work.

Mechanics, Iron Work—3 hours a week. Farm blacksmithing.

Household Emergencies, Invalid Cooking—3 hours a week. Care of patient and sick room. First aid to wounded, use of disinfectants, etc., drowning.

MINIMUM REQUIRED WORK

Farm Work—9 hours a week.

Home Work—9 hours a week.

Work assigned as in previous year.

THIRD YEAR—FALL TERM

CLASSROOM INSTRUCTION

English Composition (3), Classic Readings (1).

Mathematics—Algebra (4).

English History—To end of Middle Ages (2).

Physics—(3) Properties of matter, Mechanics of solids, apply to farm life.

Animal Husbandry—(3) Study of horses, cattle, sheep, swine, poultry, Home Science (3).

PRACTICUMS, OR LABORATORY, FIELD, AND SHOP INSTRUCTION

Laboratory, Agricultural Physics—3 hours a week. Experiments with soils, machinery, other farm equipment to illustrate laws of physics.

Plat, Field-Work—3 hours a week. Farm crops, stock judging.

Mechanics—Blacksmithing, plumbing, steam fitting as applied to farm and home. 3 hours a week.

Sewing, Millinery—Previous work continued, making hats.

MINIMUM REQUIRED WORK

Farm Work—9 hours.

Home Work—9 hours.

Work assigned as in previous years.

THIRD YEAR—WINTER TERM

CLASSROOM INSTRUCTION

English—Rhetoric, Composition (3), Classic Readings (1).

English History—Through Cromwell (2).

Physics—(3) Mechanics of fluids, sound, light; apply to farm life.

Animal Husbandry—(3), Home Science (3), Girls.

PRACTICUMS, OR LABORATORY, FIELD, AND SHOP INSTRUCTION

Laboratory—3 hours a week. Agricultural Physics. Special attention to farm and dairy equipment.

Field Exercises—Care of stock, study of breeds, equipment.

Mechanics—Farm machinery.

Cooking—3 hours. Previous work continued.

MINIMUM REQUIRED WORK

Farm Work—9 hours.

Home Work—9 hours a week. Include poultry, bees, pigeons.

Work as assigned in previous years.

THIRD YEAR—SPRING TERM

CLASSROOM INSTRUCTION

English—Composition, Rhetoric (3), Classic Readings (1).

Rural Law—(3).

English History—(2) To Present Time.

Physics—Heat, Electricity. Apply to Farm Life.

Dairying—(3) Home Science.

PRACTICUMS, OR LABORATORY, FIELD, AND SHOP INSTRUCTION

Laboratory—Agricultural Physics. Especially as related to dairying.

Field-Work.—Study of farm buildings in neighborhood, planning and care of same.

Mechanics—Designing farmhouses, farm constructions, concrete work.

Sewing, Hygiene—3 hours. Use of patterns, making simple shirt-waists, skirts. Hygiene of the home.

MINIMUM REQUIRED WORK

Farm Work—9 hours.

Home Work—9 hours, including dairying.

FOURTH YEAR—FALL TERM

CLASSROOM INSTRUCTION

English—History, English, Literature (2), Theme Work (2).

Mathematics—Geometry (4).

Civics—(3).

Chemistry—(3).

Rural Engineering (3), Home Science.

PRACTICUMS, OR LABORATORY, FIELD, AND SHOP INSTRUCTION

Laboratory—3 hours a week. Chemistry of foods, feed-stuffs, fertilizers, animal products.

Field Exercises—Surveying, laying out grounds, fields, drains, etc.

Mechanics—Draw farm plans. Continue previous work.

Household Economics—Home sanitation.

Assigned work for this year should give as much practice as possible in farm management.

MINIMUM REQUIRED WORK

Farm Work—9 hours.

Home Work—9 hours.

FOURTH YEAR—WINTER TERM

CLASSROOM INSTRUCTION

English—History, English, Literature (2), Theme work (2).

Mathematics—Geometry (4).

Civics (2).

Chemistry (3).

Farm Management and Sanitation, Systems of Farming (3), Home Science.

PRACTICUMS, OR LABORATORY, FIELD, AND SHOP INSTRUCTION

Laboratory—Chemistry of foods, feed-stuffs, fertilizers, animal products. 3 hours a week.

Field Exercises—Continue work of previous term.

Mechanics—3 hours a week. Topographical drawing, construction of roads.

Home Management—3 hours a week. Household decoration.

MINIMUM REQUIRED WORK

Farm Work—9 hours a week.

Home Work—9 hours a week.

(See farm work under fall term.)

FOURTH YEAR—SPRING TERM

CLASSROOM INSTRUCTION

English—Preparation of Essays (2), Classic Readings (1).

Mathematics—Geometry (4).

Rural Economics (3).

Chemistry (3).

Economic Biology (1).

PRACTICUMS, OR LABORATORY, FIELD, AND SHOP INSTRUCTION

Laboratory—Chemistry continued. Bacteriology. 3 hours a week.
Library Reading—3 hours a week.
Household Management—3 hours a week. Planning a home.

MINIMUM REQUIRED WORK

Farm Work—9 hours a week.
Home Work—9 hours a week.
(See farm work under fall term.)

FIFTH DISTRICT SCHOOL AT MONROE, GEORGIA

The school building is located on a farm of 250 acres three miles north of Monroe. The Gainsville Midland railroad passes through the farm. The students living in the city of Monroe are thus enabled to go back and forth on this railroad, boarding at home, while students from other places board in the dormitories or in the farm homes near the school. The school is in a good environment and far enough from town, it would seem.

This school opened January 6, 1908, with ninety pupils but since that time the enrollment has been increased to 115. Thirty-five of them are girls and the remainder are boys. They range in age from fourteen to twenty-three years and come from every county in the congressional district.

Thus far these boys and girls have done all the work, not counting of course the construction of the main buildings. The boys have put in the sewerage and waterworks, the latter being a well with a fifty-foot water tower containing a seventeen-hundred-gallon tank. The water is pumped by a gasoline engine. The boys put in most of the 2,000 feet of sewer. They also laid out and shaped up the walks and driveways on the campus; set out several hundred fruit and shade trees; dug up about a thousand stumps; built an engine-house, five henhouses; cut 25 cords of wood, and did considerable plowing. An eighteen-hundred-dollar laundry plant has also been installed by the boys under the supervision of the teachers. A blacksmith shop and manual-training house has been built by the boys and about three hundred dollars worth of equipment has been provided. For the farm work there are six large mules worth two hundred dollars each and two wagons costing eighty dollars each. A twenty-horsepower engine furnishes the power for the laundry plant which has a capacity of 100 shirts per hour. The boys and girls each do their own laundry work. There are no servants on the place. The domestic-science department has an equipment costing three hundred and fifty dollars with room for sixteen girls to do laboratory work at the same time.

Three girls and one boy cook each meal, the boy firing the stoves and lifting heavy vessels, while the girls do the cooking. The same students act as waiters, the set being so changed that no student cooks more than one meal a day. Six boys wash dishes, attending at each meal, so that no boy is employed at this work more than once each day. The cooks are paid ten cents each for their work in preparing each meal. One boy is assigned to each recitation room to sweep, dust, and build fires. He is paid ten cents a day for his work. Every boy and girl does some profitable work. Ten cents an hour is allowed for profitable work and about 15 per cent. of the boys paid their entire expenses for the month of March in this manner. All the academic classroom work is done in the forenoon, the afternoons being devoted to practice and profitable work.

A walk over the fine farm showing the experimental plots started is an inspiration. This work will prove of great value if the state supports this department with money as it should. The United States Department of Agriculture has a corn experiment station on this farm where several hundred different experiments are now being carried on.

The estimated revenue arising from the tax on fertilizers sold in the state amounts to about six thousand dollars—not enough to equip school and farm with necessary things and provide all the trained instructors that will be needed to realize the hopes of those who inaugurated the movement. No doubt the legislature will in due time appreciate what these schools may do for the development of agriculture and country life in general, and make generous provision for their maintenance and growth.

The following is taken from their first printed announcement with reference to expenses, conveniences, etc.

EXPENSES

It is intended to make the cost to the student as low as possible. Tuition, furnished rooms, lights, fuel, laundry, tools, vessels and cooking utensils will be free. Students who board and live in the dormitories will be required to bring $10 at the opening of the school. They will be credited with all profitable work done during the first month, this to be deducted from $10 to ascertain the amount to be paid for the second month. Example: A student brings $10 at the opening of school for his first month's board. If he or she does $4 worth of profitable work during this month, then only $6 need be sent for the second month. If during the second month he or she does $5.50 worth of profitable work, then only $4.50 will be required for the following month, and so on. In other words, the amount for each month following the first will be $10 less whatever amount of profitable work is done during the previous month. It is believed that the total net cost of attending the school will not exceed $5 or $6 per month. Indeed some students can be used through the vacation period to finish up the farm work, look after the live stock, poultry, etc., and in this way can probably pay their entire expenses in work.

WHAT STUDENTS MUST BRING

Each student must bring with him or her when he enters the school complete bed furnishings, including one pillow, two pillow slips, two sheets, one pair of blankets, one or more heavy quilts or comforts, four towels and a laundry bag.

In addition to the above articles, each student should come provided with working clothes, overshoes, umbrella, hair-brush, comb, tooth-brush, soap and any other article which he or she might wish for personal use or comfort.

Every article which goes to the laundry must be plainly marked with indelible ink.

Nunnally Bros. & McCrea, of Atlanta, have generously agreed to donate to each boy who enters the school a pair of their engineer overalls. The girls will also be provided with work aprons of some value. These will be given the students as soon as they shall have matriculated.

CONVENIENCES

Every room in every building will be furnished with free electric lights. Plenty of baths and toilets will be provided in the buildings for convenience of students.

Each dormitory room will be provided with a double bedstead, spring and cotton mattress free to boarding students. Each room will also contain a small linen closet, a dresser and a washstand.

These rooms will accommodate two students. The rooms will be heated with individual wood-burning heaters. The wood will be furnished free, the boys being required to saw and carry it in the rooms.

INSTRUCTION

The teachers are men and women who have had special training in their several lines of work.

While literary instruction shall have careful attention, yet the prime object aimed at in this school will be to train boys and girls in agriculture and the useful arts. The whole student shall be trained, head, heart and hands.

All students under eighteen years of age will be required to take the full course prescribed. Farmers or others who are over eighteen years of age may attend the school and take any special course offered, such as farm accounts, farm carpentry, grafting, budding, dairying, poultry business, laundering, soils, fertilizers, gardening, sewing, cookery, millinery, etc.

THIRD DISTRICT SCHOOL AT AMERICUS, GEORGIA

The school building is located on a fine farm of three hundred acres adjoining the corporate limits of the city of Americus with about 15,000 population.

The school opened January 6, 1908, with an enrollment of fifteen girls and ninety-five boys, from all the fifteen counties of this congressional district. Seventy per cent. of those entering came from farm homes. The faculty and students are hard at work getting things in shape to do good work. All the outside work is being done by the boys. An old cabin has been fitted up for a small blacksmith shop and one forge installed. Manual training has been started in a small way, the boys making the work benches. The school must have larger equipment for laboratory, shop, and farm if it is to meet the expectations of those interested in this type of schools. This the people understand. Experiments have been started on the farm for the improvement of cotton and corn. A farm superintendent is employed and plans are being matured to carry on work in dairying, poultry, fruit. and general farm operations.

When these schools opened in January everything was new both to students and teachers. Much work remained to be done upon the buildings, equipment, and grounds. As the plan of the school contemplated the doing of this work, as largely as possible, by students under the direction of the teachers, their energies were expended chiefly, during the first three months of the year, in improving external and material conditions, getting things in order so as to be able to take up and carry out the regular course of study.

At the time of my visit, the recitations and classroom work observed were still largely devoted to finding out the qualifications and attainments of the students, and was purely academic, little being attempted with agricultural subjects. The work on the farm showed that much outside work had been accomplished, and excellent beginnings had been made in the instruction necessary for this work.

At Americus the manual-training work was largely devoted to the making of library shelves and some of the simpler furnishings and equipment for the laboratories.

Not knowing the conditions under which these schools had been organized, I had expected to find more of the systematic instruction which should characterize an agricultural school than was in evidence. A few hours' observation, however, made clear the reasons why this work had been delayed, and justified the wisdom of the authorities in such delay. In short, the schools were simply finding themselves during those first months, in the hope that by the opening of the school year in September, 1908, they would be ready for systematic and regular work in accordance with the course of study.

The teachers in these schools impress one as being an earnest body of men and women conscious of their opportunity, and also sensible of the limitations of the situation. One must remember that the boys and girls entering the schools came from the various counties of the districts, the majority from farms, having had limited advantages in the country schools maintained but three or four months of the year, taught by teachers who themselves had no other training than that received in these same schools. Some idea is thus obtained of the necessity for the preliminary work necessary in these agricultural schools.

The conclusion forces itself upon the observer that the next year will be an important one in the history and development of this type of schools. If they are supported in a financial way so that the necessary equipment can be provided and instructors furnished to meet the growth of the student body, then these schools will come up to the expectation of the founders. If, however, their growth is to be stunted because of inadequate financial support, then they will become simply standard high schools, with the farms being worked by the boys as a means of paying their schooling and with little relation to education. Simply to spend the afternoon on the farm and the morning in the classroom does not mean a course in agricultural education.

CONCLUSIONS OF THE COMMITTEE

The results of the investigations made by your committee seem to warrant the following conclusions:

1. That the conclusions formulated by the committee in its first report are fully justified by the existing condition of industrial education in schools for rural communities throughout the country, as determined by the further investigations of the committee and by the investigations of others.

2. That the development of industrial education in types of schools adapted to rural communities has thus far been confined almost wholly to instruction in agriculture, except in the secondary schools distinctively industrial in character, and which have been authorized by special legislation.

3. That is it desirable to extend the work so as to provide for training for

the boys in the use of farm tools and machinery and for the girls in the household arts.

4. That facilities for appropriate types of industrial education may be provided in the consolidated rural school carrying two or more years of high-school work, provided the interest, public spirit, and liberality of the people of the district are such as to secure adequate funds for the maintenance of the schools through local taxation; or provided legislation can be secured that will furnish state aid which, together with the amount the district is able and willing to furnish, will be adequate for the proper support of the schools.

5. That such schools will necessarily be expensive, and that unless the necessary funds are available to meet this expense, the desired results cannot be secured.

6. That the same relations between proper maintenance and adequate results exist in the rural high schools attempting to provide for industrial education as obtain in the consolidated school.

7. That apart from the question of expense, the most serious difficulty in the way of introducing industrial phases of education in the consolidated and rural high schools is in the tendency of teachers and school authorities unduly to magnify the importance of the traditional courses of study and an unwillingness to modify them except by adding new subjects. Elimination of some traditional subjects, or of phases of these subjects, must be provided for in order to give place for the new lines of work without overtaxing the energies of the students.

8. That the existence in different parts of the country of state, congressional district, and county schools of secondary type, industrial in character, and the introduction of industrial phases of education into the various kinds of secondary schools previously existing as a part of our public-school system indicate a healthy development of sentiment on this subject and a recognition of the fact that different types of schools are needed in different parts of the country to adapt the educational effort in this field to local conditions; that any action providing national aid, which would operate through the influence of such aid to fix a single type of industrial school for rural communities for all parts of the country, would be unfortunate; but that aid from the national government for industrial education in rural communities would give a great impetus to this phase of educational work and would result in enormous increase in the productive capacity of the country, provided it be given under such limitations as will leave each state free to work out its system of industrial education in rural schools, in such a manner as to adapt it best to local conditions.

9. That the supply of properly trained teachers for carrying on this work is totally inadequate to meet even the present demand, and that the increase in the demand for such teachers in the near future requires a very large increase in the facilities for their preparation, and that to supply these facilities special training schools should be established thruout the country for the preparation of elementary rural-school teachers; that the normal schools whose grad-

uates find positions in rural schools should broaden and strengthen in every way their courses of instruction along industrial lines adapted to the needs of rural schools; that the agricultural colleges favorably situated for such work should undertake to organize special courses for the purpose of training teachers for the secondary schools, capable of giving instruction in agriculture and related subjects.

10. That in the growth of public sentiment, in the development of ideals, in the preparation of courses of study, and in the facilities for the training of teachers for industrial work in rural schools, decided progress has been made during recent years; but that much yet remains to be done before the importance and value of this kind of industrial education shall be fully appreciated by all concerned, and before it shall receive its appropriate recognition and find its proper place in our educational system.

LORENZO D. HARVEY
ELMER ELLSWORTH BROWN
O. J. KERN
Committee

DISCUSSION

DAVID B. JOHNSON, president, Winthrop Normal and Industrial College, Rock Hill, S. C.—In the South, before the war, the aim of all education for men was to prepare for one of the professions—law, medicine, or the ministry—and for women to prepare them to shine in society. And this was the aim there, I regret to say, long after the war. It is true that in South Carolina, the state I represent, a philanthropic citizen with prophetic vision, Dr. John De La Howe, founded an agricultural school on his farm in Abbeville District in 1796, but this school, though still in existence, never flourished on account of the conditions of admission to it and a lack of appreciation and encouragement.

The planter, with his many acres and slaves, was forced to gain by experience expert knowledge of the soil and skill in management, and the planter's wife to become learned and skillful in home economics; but they constituted a small part of the population and had no help whatever in preparation for their difficult and important life work from the schools. The negroes on the plantation received from these two—the experienced planter and his wife—the industrial training which is now seen to be such an essential part of the education of all. The negroes were the blacksmiths, carpenters, wheelwrights, shoemakers, housekeepers, raisers of live stock, poultry, etc. And thus industrial education for the whites was placed under a ban. The war broke up the plantation industrial training of the negro and emancipated the white man rather than the black man and has opened the way for the industrial training of all the people.

The South has not been alone in its thralldom to classical learning in the schools, but it has been slower than the rest of the country in escaping from it, because, mainly, of its conservatism, its impoverishment by the war, and its peculiar social, industrial, and economic conditions. I rejoice that there is now a very general awakening, North and South, to the need and importance of industrial training in the city and the country.

The president of the United States, in a noted address to leading educators of the country, takes industrial education as his theme, holding that industrial training, the training which fits a man for the shop and the farm, is one of the most potent factors in national development and that real protection to American labor is to be secured not by the tariff and the immigration laws but by industrial training of the masses. Great capitalists and manufacturers organize the National Society for the Promotion of Industrial Education.

The state of Massachusetts appoints a commission for the study of industrial education, whose reports are in general demand. Bills are introduced in the Congress of the United States for the encouragement of industrial education throughout the country—the Burkett and the Davis Bills—and this Committee on Industrial Education is appointed by authority of the National Council of Education.

Industrial training is nowhere more needed than with the rural population, on account of the great interests at stake, the general ignorance of the country people of the best methods of conducting their business—farming—and the great number of people engaged in this business. According to the last census, we have engaged in agricultural pursuits more people than in any other pursuit, the number being 10,381,765. The next highest number, 7,085,309, is engaged in manufacturing, mechanical arts, and mining.

I believe we are all agreed now that education must prepare for life's duties, whatever they may be. If the child is to spend his life in the country, he must receive the training that will fit him to be an efficient economic unit there.

The waste on the farm on account of ignorance is appalling. From authoritative reports by government officials we learn that 2,678,021 cattle die in the United States annually from exposure and preventable disease. Imperfect and unscientific cultivation is a source of great waste. Millions of farmers persist in half cultivation of large areas, when they would make more by proper tillage of fewer acres, and then ruin the land by a disregard of a proper rotation of crops.

The agricultural South feels keenly the necessity for industrial education for the rural population and is feeling its way toward the best methods of supplying it. South Carolina holds the world's record for the growing of corn per acre, but it is far from being a great corn-producing state.

The district agricultural schools of Georgia, established by the legislature of that state, have been in existence over a year now and are meeting with great public favor. Each school has a farm, and the boys and girls, who all live in dormitories at the school, do all the farm labor in addition to the academic work required. This unique experiment by the state of Georgia is being watched with great interest by the other southern states.

The normal schools of the South are giving industrial training along many lines, including agriculture, to prepare teachers for such work. The institution I represent, besides providing for training in domestic arts and sciences, housekeeping, care of school grounds and buildings, manual training, and the other usual industrial arts, gives instruction in elementary agriculture in connection with school gardens and a farm of 144 acres, where there is a dairy, an orchard, an apiary, etc.

I agree with the final conclusion of the committee "that much progress has been made during recent years, but that much yet remains to be done before the importance and value of industrial education for rural schools shall be fully appreciated by all concerned and before it shall receive its appropriate recognition and find its proper place in our educational system."

PRELIMINARY REPORT OF COMMITTEE ON MORAL TRAINING IN PUBLIC SCHOOLS

A. THE PROBLEM STATED

MARTIN G. BRUMBAUGH, SUPERINTENDENT OF SCHOOLS, PHILADELPHIA, PA.

I. THE SCOPE.—To determine the limits of the problem.

1. Related essentials. To furnish the soul with the elements of the problem.
    - *a*) The virtue of civilization, which is politeness or courtesy.

The problem of civilization is to secure conduct on the plane of social demand.

b) The virtue of morality, which is conscientiousness or dependableness. The problem of morality is to secure conduct on the plane of thought, whence arises the function of conscience.

2. Religious education proper.
    a) The virtue of religion, which is humility.
    The problem of religion is to secure a recognition of the inadequacy of human guidance for conduct and to follow implicitly the guidance of the divine.
    b) Its aspects.
        1. The theoretical training in the religious life.
            (*a*) Nutrition of feeling—Problem of elementary education.
            (*b*) Nutrition of definition—Problem of secondary education.
            (*c*) Nutrition of insight—Problem of higher education.
        2. The practical training.
            (*a*) Consecration of self to our ideals.
            (*b*) Reconciliation of the individual with his lot.
            (*c*) Selection of a viewpoint in life.
        3. The absolute training.
            (*a*) Conformity to law.
            (*b*) Investigation of the activities of the race in its effort to achieve the higher life.
            (*c*) Selection of a creed or confession of faith.

II. THE METHOD.—To determine the process of instruction.
1. Tell it—to solicit thought—Intellectual phase.
2. Rhyme it—to solicit feeling—Emotional phase.
3. Formulate it—to solicit guidance—Volitional phase.

The question or problem is: How much of all this may be taught in the public schools?

B. THE TREATMENT OF PUPILS

J. W. CARR, SUPERINTENDENT OF SCHOOLS, DAYTON, OHIO

The future greatness of this nation will depend more upon the care and training of its children than aught else. It is not enough to teach children the rudiments of knowledge. They must be protected against vice, and receive that kind of moral training that will develop in them the right sort of moral fiber. If we as a people fail, it will not be for lack of wealth, or opportunity, or knowledge, or skill, but it will be on account of low ideals and the failure to develop proper standards of moral character among the children. So *the* problem of problems, not only of the schools but of the nation, is not financial, or commercial, or political, or social, but moral—the problem of developing our children into upright men and women.

It is too much to expect the public schools to develop the highest types of moral character among children, just as it is too much to expect the schools to develop the highest types of scholarship or the best examples of skill. These higher forms of excellency can only be attained by mature persons after years of training in the school of experience and under the exigencies of real life· The public school will do all that can reasonably be expected of it, if it aids the pupil to lay a broad foundation for the development of moral character in after life. This is done in two ways:

1. By aiding him to form lofty ideals of honor, truth, justice, duty, and the like.
2. By training him in the formation of certain moral habits, such as habits of self-control, cleanliness, obedience, honesty, justice, industry, fairness, considerateness, patience, perseverance, self-respect, respect for others, loyalty, reverence, and love.

Now, in order that moral habits may be formed by pupils most readily and certainly, several things are necessary, such as a definite understanding of the habits to be acquired, wholesome environments, competent and sympathetic teachers, kind and just treatment, proper stimuli for developing the sensibilities and the will, and frequent opportunities for the performance of moral acts until they become habits. An adequate discussion of any one of these would transcend the limits of this paper; hence, the briefest outline only can be given.

In order that anything may be done properly, it is first necessary for us to have a clear conception of just what that thing is. If we want to build a house, we first decide what kind of a house it is to be, and then we make a definite plan of every part of it, having due consideration for the use to which it is to be put, the amount of money to be expended, the material available, and so on. We then proceed to build the house ourselves or have someone to build it for us. In a similar way we must decide what traits of character we wish to develop in the pupils in the public schools, and then we must know how to go about it in order to develop those traits most surely and in the best way. We decide definitely that every child needs to acquire certain personal habits such as honor, self-control, and the like, and then we use the means available to aid him in acquiring these habits. Having decided on some of the moral habits we wish them to acquire, we should then provide an environment for the school where it will be easiest for pupils to form these habits. Hence, the necessity of locating the school in a place where pupils will seldom come into contact with vicious people, and where they will be contaminated least by the evil influences of the community. The people of one of our great cities were indignant and shocked when an official report revealed the fact that 384 of their public schools was each located in the same square with a saloon. Many of these saloons had gambling dens and brothels connected with them. As a natural consequence, the children attending these schools came into daily contact with drunken men and drunken women, heard profane and coarse language, and were constantly exposed to dangers that are as deadly to the moral life as the miasma of the Congo is to the physical life. No wonder mothers prayed for the deliverance of their children, and fathers resolved that these things should not be. If dens of iniquity must exist, they at least should not be allowed in immediate proximity to our public schools.

There should be a healthy moral atmosphere pervading every school. The administration of school affairs should be clean and wholesome. Members of the board of education, officers of the board, superintendents, principals, and teachers should all be persons of high moral character. They should be such persons as command the universal respect and confidence of the people of the community and the admiration and love of the pupils. Children may be brought up amid evil influences at home, they may be exposed to contamination from bad associates, they may be neglected and buffeted by society in general, but it should be the heritage of every child to have the opportunity of spending at least a part of his youth in a public school, every part of which is pervaded by the most wholesome moral atmosphere.

Teachers must not only be competent but they must have an unselfish interest in the children and be able to sympathize with them in all their activities. I have never known a teacher to have a strong and abiding influence over their lives unless the children were first convinced that their teacher had a genuine interest in them. "What is the first requisite for reclaiming and transforming these children?" I once asked the principal of a great truant school on the East Side in New York City. "We must first convince them that we have an unselfish interest in their welfare," was the prompt response. "At first, they resent everything that we attempt to do for them or have them do for themselves," she continued, "because they think that we are trying 'to work them' as the boys say. But as soon as they realize that the teachers really have a genuine interest in them, their whole attitude changes and they begin to improve." The same thing is true with all children in all schools.

Teachers must be able to sympathize with pupils in all conditions and under all circumstances—sympathize with them in their work and in their play—sympathize with them in their difficulties—sympathize with them in their joys and sorrows. The Great Teacher is touched by our infirmities, he sympathizes with us. It is by the mystic bond of sympathy that the virtue, the healing and transforming power of one soul is transferred to another. As oxygen is to the body, so is sympathy to the moral life of the child.

Kind and just treatment of children is a prime requisite for their moral development. In the modern school, kindness has almost entirely supplanted the rod as a means of discipline. The results, on the whole, have been good. The best traits of moral character are developed by the repression of the evil and the cultivation of the good. By treating children kindly, they are not so apt to give way to passion and it is easy for them to be obedient, cheerful, and happy themselves and kind to others. In the atmosphere of kindness, every virtue blossoms and bears fruit.

But children should be treated justly as well as kindly. It is very easy for kindness to degenerate into mere indulgence. It is not kindness, but quite the opposite, when we tolerate in children idleness, falsehood, disobedience, dishonesty, and the like. Justice demands that these and similar things be corrected. Children as a rule appreciate correction and even punishment, so long as it is not unjust, but any form of injustice, or the failure to mete out justice to all alike, is quickly felt and always resented. Justice, as well as kindness, must be enthroned in the school if the moral life of the children is to be properly developed.

Every form of school activity should contribute an important part to the moral development of the pupils. In fact it is the chief purpose of the school not to impart knowledge but to develop character and it is indeed fortunate that when a school is so conducted as to do most for the intellectual development of the children, it, at the same time, *may* do the most for their moral growth. It all depends upon the *way* in which it is done; the *spirit* which pervades the school. The routine work of the school; the discipline of the school; the incidental and minor exercises of the school; the recess periods; the friendly intercourses of pupils with one another and with their teacher; the study period; the recitation; the course of study; and especially the example of the teacher—these must all be utilized in training pupils in the formation of correct moral habits. It is this training, the daily practice in these simple elemental virtues, that enable pupils to form habits of uprightness, which finally develop into moral character. It will be one of the most important parts of this report when finally presented to show how these different school activities may be utilized to aid in the formation of moral habits and lofty moral ideals.

C. THE HOME AND SCHOOL LIFE

J. M. GREENWOOD, SUPERINTENDENT OF SCHOOLS, KANSAS CITY, MO.

[*An Abstract*]

a) *Obedience.*—In the moral sphere the child at first has no intuitions of the abstract principles of right and wrong. Behind every act there should be clear knowledge and a definite purpose, and the more complete the knowledge, the stronger is the tendency to act up to the fullest measure of light one has. The entire training of a child begins with the observance of certain rules, and this leads the way to obedience and self-control—the object of all training.

b) *The home.*—Whatever is good and pure and clean, or whatever is bad and impure and vile in the inner life of the individual, has its rise in the home life.

c) *The relation of parent and child.*—Honesty with children always counts. The parent who practices deception, either covertly or openly, or plays sharp tricks, or induces his child to engage in practices that will not bear the closest scrutiny, is false to the sacred trust committed to his care.

d) *Habits that should be taught to children.*—(1) Doing honest work; (2) Shouldering responsibility; (3) Gaining ends by honest means, etc.

e) *Making children over.*—Each case requires special treatment since there is no universal science of human nature. To substitute higher motives for lower motives. Ideals are higher than ideas.

f) *The school life.*—Teachers cannot have direct physical and spiritual control over pupils to exceed eight hours each school day, and not to exceed two hundred days out of the three hundred and sixty-five days of each year.

g) *Children's school habits.*—The school is the pupil's place of business, and while there he should attend to his business promptly and cheerfully, and do everything required of him in the best manner possible.

h) *Moral training in school.*—The theory of all moral training is based on two simple principles: *judgment and feeling combined, followed by doing.* The reading lessons will usually furnish sufficient material for the inculcation of good habits and their opposites.

Self-help is the mainspring of all genuine worth.

1. How to train pupils incidentally.
2. How to train pupils formally.
3. Illustrations contrasting virtues and their opposites—vices—in short, teaching by contrast.

D. RELATION OF MORAL AND RELIGIOUS TRAINING

CLIFFORD W. BARNES, EXECUTIVE CHAIRMAN, INTERNATIONAL COMMITTEE ON MORAL TRAINING, CHICAGO, ILL.

The discussion of this subject invites us to sweep the whole gamut of philosophical thought, both ancient and modern, to discourse wisely on natural and revealed religion, and to enlarge upon the meaning of the categorical imperative, in a manner that would delight the soul of Immanuel Kant. But let it suffice for our purpose to say that, judged from the standpoint of abstract philosophy, the relation between morals and religion is very close, and whether we arrive at our knowledge of God through a recognition of duty or recognize duty through a knowledge of God, there is something in the moral imperative that links the human with the divine, something in religion which must find expression in moral action; and in moral action which finds its chief dynamic in religion.

Passing from the academic to the practical discussion of the problem, especially as it pertains to education, we find that the closest relation has always existed between moral and religious training. In the early days of our own country the *summun bonum* of education was a course in biblical literature and theology that would do credit to a modern church seminary; the spelling book, the reader, and even the arithmetic obtaining the substance of their content from the sacred Scriptures. Moral training was not intentionally neglected, but it was considered such a natural and inevitable resultant of religion that it received little attention.

Our own system of education was but the counterpart of that which existed in Europe at that time, and which, indeed, had existed in much the same form for many generations. Speaking in general, it may be said that all civilized and even the so-called barbarous nations have always made religion the rock foundation and the most pervasive force in education, while moral action has ever been considered its true expression in the lives of good citizens. Of recent years, in the more progressive of European countries, there has been a steadily growing feeling of dissatisfaction with the results of religious training. Somehow the Bible stories have not always been transmuted into ethical principles, active in the lives of pupils, and there has seemed to be a dangerous gap between precept and practice in the routine of daily affairs. During the past year, in many of the schools of England the Scripture lessons have been so arranged as to constitute a systematic course of moral instruction; and in Germany a league has been formed to make religious teaching more ethical.

But, however you look at the problem, in the abstract or the concrete, through the eyes of philosophy or the records of history, moral and religious training have ever gone hand in hand, maintaining the closest relation to each other, finding strength in union and weakness in separation.

It is unnecessary to recall to your minds those changing events in our national life which have gradually eliminated all religious instruction from the public schools, and made our system of education nominally secular. That system is here to stay, and it is our duty to accept it gladly as a part of God's wise providence, and do our level best to make it most effective in the training of the young. There is, of course, no question as to the propriety or desirability of so arranging this system of education as to give the first place to moral training, for in the very nature of things all else should be secondary. But, in the light of that which has gone before, how are we going to have a vital morality without the introduction of that religious instruction which is forbidden? or, stated somewhat differently, what relation can be established, in the public schools of America, between these two essentially complimentary factors—religion and morality?

Briefly answering this question, I would say:

First, In teaching morals one should yield to the philosophical requirement of the situation and acknowledge the religious basis on which morality rests. Surely we may be permitted in this country to speak with greater freedom concerning the general subject of religion than they who live in that land of religious controversy, sometimes called "Godless France," and yet that government, in its official program, urges upon its teachers to show the relation between the moral and divine law, to inculcate in their pupils a reverence for God and religion, and to be attentively respectful at any service of the church.

Second, As one makes use of that best medium for the teaching of a moral lesson, i. e., the biography of a good man, it can properly be shown how large a part religion played in the development of character and in the winning of success. There need be nothing here of dogmatism or theology, but a simple recognition of the historical fact that one of the mighty influences in the life of any man is his religion, be he Protestant, Catholic, or Jew.

Third, Formal worship once a day should be the universal practice in the schools of America. If at the basis of all moral teaching we come in touch with the divine, and if the chief aim of education is to promote moral training, surely we are illogical and foolish beyond measure to prohibit the recognition in some formal way of that first great underlying Cause, whom some call "Lord," "Our God," and "Heavenly Father." When the juror, and the witness, and the client before a notary are no longer asked to swear their affirmation in God's name; when our judges, and our congressmen, and other public servants are permitted to assume their solemn obligations without taking oath of office on the word of God; when the President of the United States refuses to issue a Thanksgiving proclamation, in acknowledgment of the blessings of Almighty God; when Congress, by deliberate choice, refuses to elect a chaplain, or be led in prayer, and strikes from our coin "in God we trust;" and when the laws of the land so change their character as to give no recognition to God's Holy Day, and divine authority, then, and not till then, will the public schools of America be justified in omitting all forms of daily worship. It is needless to enter here upon the discussion of this much mooted question, but I cannot refrain from saying how monstrously absurd and sinfully dangerous I consider it to be for any organization controlling the educational force of a great sin-burdened city deliberately to refuse to give official recognition to the greatest power which makes for righteousness in all the world.

Fourth, The atmosphere of the school may be a medium for the introduction of religion. This will require no stating of creed, no expression of belief, nothing that might be called pietistic or sanctimonious, but only a pervasive spirit of light and joy and happiness, a sort of general understanding that life is a great and beautiful gift of God, not to be used for sordid purposes, but rather as a means of serving others to the limit of one's ability. This will be religion, pure and undefiled, admitting of no sectarian controversy, but exerting a tremendously vitalizing influence on every effort at moral training. The source of this religious atmosphere is not the school in which we find it, but the church and the homes of the neighborhood. A score or more of antagonistic denominations will help to make it, a thousand different faiths will enter into it, the Bible story, the pastor's prayer, the mother's counsel, the father's command, these all will do their part, while underneath these runs a steady current of religious conviction, sweeping down from the days of our ancestors to keep the hearts of the children strong and true. This is not some strange illusion of an idle dreamer, for here and there one finds a school whose life and spirit answer well to this description, and the religious element which pervades it in this atmospheric manner is a powerful reality working mightily for good. The church and the home may well feel a new sense of responsibility as it thus becomes clear that the correlation of religion and morality in our system of education is so largly dependent upon them. Religion in the individual is good; but it becomes a better and greater thing when, multiplied a thousand fold, it gives the spirit of religion to the town, the school, and the nation.

Fifth, The teacher, through his personality, should bring religion to the aid of morality. Considering my words very carefully, I have no hesitation in saying that an irreligious person has no right to teach in a public school. Do not understand me to mean by "irreligious" a person who lacks membership is some one of our many churches. I mean by "irreligious" a person who fails to perceive any relation between the finite and the infinite, who recognizes no supreme good in the universe, who has no consciousness of a "power not himself that makes for righteousness." Such men are often caught up by the tide of wholesome life which surrounds them on every side and are carried on to the achievement of a noble career. But as teachers of the young they lack in the spirit of reverence, in the discernment of true values, in the power to quicken high ideals, and in that love for self-sacrifice which the Great Teacher taught his disciples. I know there are some whose faith has been twisted and dwarfed by the blows of misfortune until its form is strange beyond words to describe; and there are some who by nature or training can only bow the knee, like the Greeks of old, before an altar inscribed "Agnosto Theo" (to the Unknown God); but such men are not irreligious, for with patient hope they look forward to a day of clearer vision, and with glad self-sacrifice they lend a helping hand to others as they walk the road toward the better life. Religion, even such religion, expressing itself in the person of one who is honored and loved, is worth ten thousand homilies on theology, or as many chapters learned by rote from the Holy Book.

Summing it all up, then, very briefly, we are agreed that moral training should be increasingly emphasized in our system of education. To be most effective it should never be divorced from the element of religion with which it has always been closely related by the theories of philosophy and the history of events. Under the conditions which exist in our country today, it lies within the power of our educational authorities to develop an increasingly strong and vital connection between these two important agencies, by a clear statement of their mutual dependence, a fair portrayal of their joint influence on the lives of men, the observance each day of some form of public worship, the wise use of a potential and pervasive religious atmosphere, and last, but not least, by the life and character of the honored teacher, who himself is sincerely religious.

DISCUSSION

Miss Nebraska Cropsey, Indianapolis, Ind.—It is very evident, from the able reports presented this morning, that moral development cannot be secured by any kind of early specialization (not even by manual training), nor apart from personal guidance.

The studies of the elementary school, reading, writing, arithmetic, manual training, art, will not of themselves secure moral development though they are the opportunity for growth by means of self-activity, and also the means by which the child is related to the great world, of which the school is a part. The training of the intellect must be considered in training for moral development.

The important and difficult work of the school is to furnish such conditions, by association and work, as will develop the rational will. To make the will pure and strong, as Froebel tells us, is the object of education; to place the action of the will beyond the power of accident, and, in our time especially, to make a man capable of dominating the machinery which he himself has invented.

We are constantly endeavoring to adjust our conduct to the standards of our civilization. Imitation as a process should not be underestimated in education. "How can I listen to what you say when what you do is thundering in my ears?" The personality of the teacher is the great factor in moral education. Children must be considered as individuals, and must be directed by individual intelligence and sympathy. The organization of the school community is most important, but all machinery should be considered subordinate to human growth. It is impossible to give adequate moral training in the present crowded condition of the schools. The reform most needed is not a reduction of the number of studies, but a reduction of the number of pupils assigned to each teacher. The studies in the curriculum represent only the opportunities which a child might have in a cultivated family.

Much attention has been given to literature for children, and no instrumentality is more effective in creating the ideals which must influence and direct the will. The theory of life, the theory of conduct is expressed in the art form and applied to life, before the child is capable of understanding philosophy or religious creeds.

Our literature and art should explain the child to himself in his own civilization. The life of the primitive man has its place, no doubt. The myths of earlier civilizations have much value, in a scheme of education, if they are well chosen. The method of indirect teaching has great value, but not to the exclusion of direct teaching. Children are constantly asking the meaning of the life around them and are placing their interpretation upon it. The old-time stories endeavored to explain, in a very simple way, the consequence of the deed, and the relative values of actions. It is true that an arrest of development may take place in an effort to bring the moral powers to early maturity, but it is equally true that development may be arrested by teaching below the level of the child's power to comprehend.

DISTINCTIVE FUNCTIONS OF UNIVERSITY, COLLEGE, AND NORMAL SCHOOL IN THE PREPARATION OF TEACHERS

ELMER ELLSWORTH BROWN, UNITED STATES COMMISSIONER OF EDUCATION
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It is, I believe, my function at this time merely to start the discussion of this topic, a topic that has been much discussed in the past, and sometimes with the warmth of opposing convictions. The points in which there has appeared to be irreconcilable opposition of view have now been so far talked out and studied out, that it will be possible, I am sure, for us here to consider without irritation the difficulties with which the question is necessarily attended. And we may be able to go a little way forward toward a solution of those difficulties.

What I have to present may be summed up as follows: The chief difficulty of adjustment from the side of the normal school arises from the fact that the normal school seems to be out of the main current of our scholastic life, which flows from the elementary school through the high school directly into the university or, the other way round, from the university to the secondary and elementary school.

The chief difficulty of adjustment from the side of the university arises from the fact that it has been found impossible as yet to organize in the university any system of training in the actual practice of teaching that can be compared in efficiency with that to be found in our best normal schools.

I am taking the question as it was assigned to me with this exception, that I do not undertake to discuss the function of the college as apart from that of the university. What I have to say concerning the university will apply only in part to an institution having a fully developed school of education or teachers' college. What is said of the lack of adequate practice teaching of secondary grade is, I think, of universal application. With reference to both of the difficulties mentioned above I shall have some mild suggestions toward improvement to offer before I close.

We are now well accustomed to the idea that all grades of education in this country are to be closely bound together, from the lowest to the highest. Our fidelity to the spirit of democracy requires this of us, and we are convinced that it is best in the long run both for science and for the national life. Continuity and coherence are watchwords of our educational organization.

But just because the higher grades of instruction are bound fast to the lower, we see the need of especial care that a steady progression shall be maintained in both the method and the content of our teaching. No grade of instruction shall be allowed to lay a detaining hand of scholastic custom and inertia upon the grade above it. At no stage of our scholastic ascent shall we tarry for more than two years with instruction of essentially the same type or the same grade of difficulty.

Furthermore, we cannot be content with the standards of the past. Not only our own national development, but, more particularly, our closer touch with the rest of the world, has shown us that our standards have been pitched too low. This is true both on the side of knowledge and on the side of skill in teaching. In our new position in the world, it is not enough that we win patronizing approval of our science and of our school instruction from the older culture nations. That new position requires of us that we do our full part in determining what the world-standard shall be, both in pure science and in pedagogic practice. This is particularly difficult when half our teaching force is a rope of sand and when the profitable pursuits of applied science are luring our scientists away from their laboratories. But these unfavorable circumstances cannot relieve us of our responsibility; and a consideration of the higher attainments which the present times demand, as regards both knowledge and teaching skill, has an important bearing on the distribution of function between normal schools and universities.

We are pretty well agreed that the knowledge of subject-matter and skill in presentation are both requisite in all grades of teaching, and that, broadly speaking, the skill is of greater relative importance in the earlier grades and the knowledge in the later years of schooling. A general recognition of this fact works automatically in the distribution of teachers, tending to place the graduates of colleges and universities in high-school positions and the graduates of normal schools in elementary grades, with a fair mingling of the two in the principalships and teaching positions of grammar schools. Making allowance for many exceptions, I think we should be agreed that the public good is fairly well served by such a distribution. We must recognize the fact that high schools, of the type and standing now expected in our high schools, must be mainly taught by those who have had collegiate or university training. The same should be said of the seventh and eighth grades of our grammar schools when they are taught on the department plan or offer studies of secondary grade.

We need to get special knowledge and special skill into their right relations to each other, and a third element must be added, namely, special inborn fitness for teaching. The considerations which we have before us, then, range themselves about as follows:

It is of first importance that we attract into the business of teaching and into our training schools for teachers those who have the right stuff in them, the right kind of manhood and womanhood for such work.

It is next in importance that these persons shall be well educated, as regards both general culture and special knowledge of some one subject or group of subjects.

Close after these requirements comes the requirement of technical training for the processes of teaching.

President Alderman remarked in his recent paper on "The Growing South":

> The ability of this generation to recognize education as something larger than mere learning or even discipline, to perceive it as a great force molding national character, has caused the enlistment into this field of work of young men and young women of creative capacity and exalted character, who, under other conditions in Southern history, would have instinctively turned to political and social fields of distinction and service.

Such a condition is of the utmost importance for the teaching profession and for teachers' training schools of every kind. It can be brought about only through the concurrence of the whole set of conditions surrounding our educational system. All that can be done, by co-operative action of all persons concerned, will be needed to turn toward education in the country at large those who can best do the work of education.

The second requirement, that the teacher be well educated, is emphasized here for two reasons: First, because a teacher needs such a grade of education as will give him an assured place with the best educated people in the community, and so give to his influence in the schoolroom the added weight of the respect of the community; second, because the teacher needs such a standing with his pupils that his influence upon them will outlive their days of schooling. There is a kind of skill in teaching, adequate and successful according to the standard of immediate requirements, sometimes markedly successful, which nevertheless is without depth and so falls flat when it comes to the need of a lasting influence in the grown-up lives of those on whom it has been exercised. It is particularly unfortunate when it happens, as sometimes it does happen, that the most distinct and conscious moral impression is made by a teacher whose skill in teaching is not balanced by impressive and substantial scholastic attainments, a teacher who has become a pathetic memory and nothing more when his pupils have reached their maturity.

The third requirement, that the teacher shall have mastered the art of teaching, is likewise emphasized here for two reasons: First, that his lack of skill may not come between him and his pupils, or indeed come between his pupils and their rightful education. The apostle Paul, you remember, boasted that he did not frustrate the grace of God. And second, that the young teacher, particularly, shall be able to go into team-work with the rest of the teaching force. There is something pitifully lonesome for himself and hampering to his fellows in the position of a highly-educated teacher who has not enough of pedagogic interest and teacher-training to enable him to join hands with others in making the school a school.

Now let us come back to the actual difficulties of present adjustment. A normal-school president said to me not long ago, "If you want to do anything for the normal schools, help them to get out of the blind alley in which they find themselves." It was only another way of stating the difficulty which was mentioned at the outset of this paper. Another, a teacher in a normal school, put it in this way: "Personal relations within the school are good, but intellectually we are starving." I am well aware of another side to the case. Individual presidents and teachers of normal schools have made their institutions fairly a-tingle with intellectual and aesthetic interest. Strong teachers continue to go into the normal schools, many of them bearing the higher degrees of the most advanced universities. But the blind alley exists, not as a fault but as a situation. It appears in other unattached professional schools, in schools of medicine, of law, and of theology. It may be doubted whether an adequate remedy is to be found in empowering normal schools to offer collegiate courses and give collegiate degrees, though that plan may be justified where a full course of collegiate grade can be provided without detriment to the wider work of the institution. The obvious remedy is to bring the normal school into more intimate relations with the institutions in which the highest scientific work is done, to give it an appropriate place in the university system of its state. Just how this is to be done in any given case, I am not prepared to say. The cases are extremely various. The present disposition on the part of our universities to break the undergraduate course in two at the close of the sophomore year suggests that in some instances the normal schools might profitably offer, along with their other courses, the first two years of the college course. One incidental adjustment which seems worthy of consideration is a regular and systematic exchange of instructors between the normal school and a university or certain universities. Such an exchange, when it settled into an accepted routine, would, I believe, have advantages for both of the sides concerned.

The second difficulty of which I spoke, that on the side of the university, is the difficulty of providing suitable practice teaching, particularly in schools of secondary grade. This difficulty has been partially met, in a variety of ways, at the universities of Harvard, Brown, Chicago, and California, at Teachers College, and other institutions. It does not seem to me that it has anywhere been fully met. It is comparatively easy to provide practice teaching of a grammar grade or in laboratory courses in the high school, but for high-school class work, outside of the laboratory, it is more difficult. The normal schools, by their successful organization of practice teaching of an elementary grade, have set a standard of practical training. And strong city superintendents and high-school principals are demanding, with good show of reason, that they shall not be required to do the breaking-in of high-school teachers when the normal school does successfully the breaking-in of teachers for elementary schools.

In the main it seems to me that university authorities have not yet taken this problem seriously. Yet it is, I am persuaded, a problem which will have to be taken seriously. It is to be hoped that closer relations between normal schools and universities may lead to wider experimentation in this field. I do not look for an altogether satisfactory outcome, however, till the matter has been taken in hand by some of our state legislatures. In a serious way, as part of the educational system of the state, the professional courses of our universities will have to be supplemented, as it seems to me, by regular provision for special high schools organized expressly as schools for practice teaching; or by apprentice teaching in designated high schools, after the manner of the German *Probejahr;* or by both of these provisions with others added thereto.

These few suggestions are offered with the greatest diffidence, for I well know the difficulty of the subject. I am convinced, however, that it is a field in which we must have courageous discussion and careful experimentation. And it would seem that a time has come when this Council may lead the way to some constructive advance and improvement.

DISCUSSION

John W. Cook, president of Northern Illinois State Normal School, De Kalb, Ill.—It is difficult to treat, with any degree of satisfaction, the function of the normal school as distinguished from that of the college and university within the limits of a thousand words.

Nothing can be more obvious than that the elementary school must depend quite exclusively for trained teachers upon the normal school. An occasional university woman will seek employment in the grades but, like the rest, she needs the normal-school discipline unless she has had special advantages in pedagogical training in the university. In such an event she will seek the high school rather than the grades because of a higher salary and of the richness of the subject-matter. The elementary school will be taught for years to come by young women who enter and leave the calling with a degree of freedom not discoverable in any other vocation that aspires to be called a profession.

In the large cities there is already a fair degree of permanency of tenure and it is steadily increasing, for, in the great centers of population, young women are more and more abandoning the idea of marriage and are seeking occupations that will furnish them subsistence and at the same time will supply a fairly satisfactory social standing. It is an encouraging sign to note that salaries are moving along toward a living wage so that young women who are contented to live modestly will accept the situation and will enter the schoolroom to remain there for the working period of their lives.

The compensation attaching to these positions, however, will not attract women of university training. In consequence we may expect to see few of them there unless they enter the grades for the purpose of securing that indispensable experience which will fit them for higher and more lucrative places in the educational system. They will look toward supervisorships and principalships and if they intelligently persist they will receive their reward. The old disparity of salaries is fast disappearing and in the great cities the women principals and supervisors are on a par with the men in the matter of compensation. There is no further occasion for the old lament that women must accept smaller salaries than men, simply because they are women, in these positions of grave responsibility.

Away from the larger cities the fluid character in the teaching force is its striking characteristic. The average tenure will barely exceed four years, I suspect, although I am not fortified with statistics to establish this statement. Here the work of the normal school assumes even greater importance, if possible, for without its assistance the majority of the schools will be in the hands of teachers who are in the apprentice stage and who will retire from the school about the time that they have acquired a fair degree of efficiency. Good normal schools are supplied with training schools which furnish to their graduates such an experience in theory, and in the actual teaching work, under normal conditions, as will equip them for excellent service upon their graduation. They will not only have the theory which broadly underlies elementary education but they will also be supplied with the material of instruction adapted to the various grades, and will have sufficient practice in class teaching and in room management to render them fairly good teachers from the first day of their service in the public school.

It is not practicable for any other institution to attempt this work. The university cannot do it for its students are rarely so much interested in elementary education as to engage in this practice work for a sufficient length of time to acquire the requisite skill. Furthermore, the universities are not supplied with training schools which would furnish such an opportunity if the students were disposed to avail themselves of it.

There is another class of positions which the normal school is most admirably adapted to fill. The villages and towns, and their name is legion, usually employ a principal who supervises the work of the elementary grades, oversees the high school, at least, and does some of the work of instruction. These positions pay but moderate salaries, yet they attract good talent and furnish a preparation for service in the larger towns and cities. These capable young men from the normal school are an unqualified godsend to the communities in which they are employed. They are full of the spirit of the teacher and are devoted to the work of the elementary school. They have learned to regard it as not only highly honorable but as extremely interesting and improving, and with their fine idealism they give themselves to their tasks with great enthusiasm and earnestness.

If they are prepared to enter the university when they go to the normal school they realize that their disciplines there will receive full credit at the higher institutions, hence they find their way sooner or later to those great well-springs of culture where they constitute a most admirable element in the student body. The school has caught their attention and interest and when they come back with their superior learning they make the ideal managers of educational systems.

A third group that the normal school can admirably prepare consists of principals and special teachers in village high schools where the compensation will not attract the highly-trained specialists that the cities can afford. It is an unfortunate fact that many of the teachers in secondary schools have more knowledge than skill. They come from the university with a sense of superiority and are often disposed to think slightingly of teaching as an art. The university method quite occasionally finds its way into the secondary school and invariably to its detriment. When these young women and young men have added to their normal-school training the wider culture already referred, they are extremely desirable.

There is a fourth class that the normal school is peculiarly well fitted to prepare. Critic teachers for city systems and for normal schools should themselves be imbued with the normal-school spirit. Equipped with a normal-school and college training they may return to the normal school and connect themselves with its training department with very great profit to themselves. Two years of such experience furnish an admirable preparation for such positions. A well-equipped training school can take care of two or three such pupils and do most excellently for them.

The question of the preparation of secondary teachers is still open for discussion. It is still my conviction that the normal school as at present organized is not an ideal agency for the preparation of teachers for secondary schools. Many of the normal schools, however, have extended their courses of instruction until they have become really colleges. It may be that these institutions will solve the secondary-school problem. It is my fear, however, that in their attempt to do so they will neglect the elementary school. Those aspiring to this wider development seem unwilling to accord to the elementary school the dignity that belongs to it. There is an ill-concealed dissatisfaction with the thought of limiting one's life-work to the training of young children. We shall soon see, however, the effect of this disposition and then we can talk more wisely about it.

JAMES E. RUSSELL, dean of Teachers College, Columbia University.—The training of teachers, like other educational work, is a matter chiefly of teachers and students. The right kind of teachers brought into the right kind of relations with the right kind of students should produce the right kind of results.

The trouble with most of our institutions is that we lack somewhat either in the ability of our teaching staff, or in the quality of our students, or in the equipment essential to a training school. It is clear that most colleges are defective in that they supply inadequate facilities for observation and practice in teaching; some of them are not disposed, possibly unwilling, to give that kind of academic instruction which is required by teachers of high-school subjects, not to mention teachers of lower grades; few colleges or universities have as yet put the professional training of teachers on the same plane as the training of engineers, or lawyers, or physicians. No first-class medical school, no, not even a second- or third-class medical school, would today think of graduating physicians without clinical demonstration and hospital practice. In the training of teachers the practice school is the hospital and good teaching in the presence of observers is clinical demonstration.

Moreover, young college graduates are nowadays pseudo-specialists in some one of the collegiate studies. What is taught in the average college course is not suited to the needs even of secondary teachers. Perhaps if it were entirely suited to such a purpose it would not be a proper college course. The college course I consider an essential prerequisite to the professional training of teachers for secondary schools, but we should not lose sight of the fact that the cultural discipline of the college course is no substitute for the technical equipment in the particular subject which every teacher must acquire either by experience in the classroom or by professional training. No professional school tries to equip its students with all they may need in professional life, but it should strive to systematize the body of knowledge employed in professional service in accordance with the highest professional ideals and the best scientific principles, to the end that the period of irresponsible practice may be reduced to a minimum. What is needed in each collegiate department that offers instruction for teachers is at least one course which shall unify the student's knowledge of the subject acquired in preparatory school and college and assist him in supplementing and organizing his material in such a way as to be of greatest service to him in his future professional work. Such a course may be truly academic, but it is also professional in that it selects and organizes its materials for practical purposes. It is the connecting link between the cultural discipline of the college and the technical training of the professional school.

The college professes to give cultural discipline. If it will train teachers effectively it must also give technical instruction of the character I have just specified, instruction in ways and means of selecting, arranging, and presenting school subjects, and finally observation and practice in teaching sufficient to make intending teachers conscious of their personal faults if not skilled in the methods of their art. All this requires money—money for more teachers, more equipment, and more technical facilities than most colleges possess. It means, too, more money than most colleges and universities are as yet able or willing to expend. Until the means are forthcoming the professional training of teachers by colleges and universities will be abortive.

The aim of normal schools is avowedly the professional training of teachers. Social and political considerations demand that the great public-school system below the grade of high school have particular care; economic considerations make impossible the requirement of a college course as a prerequisite to teaching in an elementary school. Hence the limitation of cultural discipline in most normal schools to that offered by high-school and rural-school graduates. It is highly desirable that some elementary teachers have more academic training than the high school can give, and I see no inherent reason why such advanced academic instruction cannot be given in a normal school as well as in a college. In fact I see no inherent reason why collegiate instruction, or even university training in methods of research, cannot be given in a normal school. It is, as I have already said, a matter chiefly of teachers and students and equipment. But the right kind of teachers and equipment means the expenditure of money—far more money than most normal schools can get or perhaps should have. But the normal school that can get the money by public grant or private gift and knows how to use it properly is surely in a position to train teachers effectively, and teachers of any grade and of any subject.

The question before us, therefore, is, in my opinion, largely a theoretic one; it is practical only in so far as prevailing conditions suggest future possibilities. Theoretically, we should have schools for the training of rural teachers, elementary teachers, high-school teachers, teachers of special branches and teachers in special schools, college teachers and university teachers.

In my opinion the graduate faculties of our universities should care for the college and university instructors; they are really professional schools for training in pure scholarship. For other grades of teachers we also need professional schools, not subordinate and suspected departments of another type of institution. The normal school that confines itself to the elementary field is on sure ground, but the average normal school gives little heed to the needs of rural education and is not equipped to train teachers for high schools. Granting that professional training is desirable for high-school teachers and for specialists and administrative officers of the entire public-school system, I think that professional schools for these purposes can be maintained more economically in connection with an established college or university than independently. The independent normal school that would do this work well must maintain most of the departments of a good college and give instruction of collegiate rank. To do this in some localities or in some states may not be a duplication of existing opportunities; in other localities it would certainly seem both unwise and wasteful.

I doubt whether we shall ultimately develop in this country many professional schools thoroly equipped to train teachers for rural schools, elementary schools, and high schools, and administrative officers and educational experts for our school system—or, indeed, for any two of these classes, in one and the same institution. The difference in the students who offer themselves for training in these respective fields, differences in home environment, personal tastes, scholarly ability, and future aims, are in themselves quite sufficient to warrant separate and distinct training schools.

But we shall not develop an ideal system in a day; we may never do so. What we are likely to do is to work out a scheme that shall be economically satisfactory and fairly responsive to our needs. We are sure one day to have training schools chiefly devoted to rural education—for the simple reason that rural education is today the most neglected part of our school system and the most in need of expert guidance. We are also sure to have teachers' professional schools in all of our great universities—for the reason that the sole function of a university is to train leaders in every art and science of value to humanity.

When the eyes of university officers are finally opened to what observers in the market-place now plainly see and when they come to hear what the public is saying about their shortcomings, I have no doubt that public service in education will be rated in importance with engineering and law and medicine. The university professional school will concern itself chiefly with the training of high-school teachers, specialists, and administrative officers. It can do this work economically and it should be able to do it as well as any independent institution.

This analysis leaves to the normal school the training chiefly of elementary and grammar-school teachers and certain kinds of special teachers and school officers. It is the field historically reserved for such schools and it is the field in which they have given best returns. There is no other field of greater importance, none that justifies better support or offers greater inducements to devoted service. I have no sympathy with the normal school that envies the college as something better or higher or worthier than itself, and apes collegiate ways for fear of the criticism of so-called learned men. On the other hand, I have only contempt for those scholars who will not grant honorable recognition to men abler than themselves in making learning of use in the world. We have need of both types of workers and I have faith in the university's ultimate conversion to the position that is obviously just and right. The progress of the past decade is an earnest of the future. The history of professional training in no other field, so far as I am aware, shows such surprising advance as has been made by the universities of this country since 1898. In my judgment the greatest obstacle to future advance is the lack of men qualified to do work of university grade. They are not to be had in sufficient numbers and it is to the credit of the universities that they will not put inferior men in superior places. As soon as the men are available, I think we shall find the means for supporting university schools for the professional training of teachers and I am sure the universities will be ready to accord such schools proper recognition. Without the men not even a normal school can perform the task.

Meanwhile I rejoice that some universities are putting forth honest efforts to solve this problem, and I am by no means averse to having some good normal schools point out the way. Overlapping and competition may be necessary evils designed by a guiding providence to hasten that educational millennium when all teachers shall be fitted for their work and take honest pride in giving professional service.

JOHN R. KIRK, president, State Normal School, Kirksville, Mo.—The university represents academic freedom. All agree that it may have any kind of school or college that its means will support. Hence, the university has no distinctive function in the preparation of teachers. Its sphere is unlimited. The University of Missouri has a Teachers College, with an elementary school and a large high school for purposes of exemplifying all phases of public-school education. This is a genuine pedagogical laboratory, useful in preparing teachers of all kinds from kindergarten to high-school seniors inclusive. Normal-school men in Missouri encouraged and urged the university to establish the Teachers College. They welcome such competition.

It is conceded that the college may have any subordinate college, sub-college, or department which its funds will support. So the college too represents academic freedom; and surely no sane man would seek to restrict any college to any alleged distinctive function in the preparation of teachers, especially while the typical college in our country is growing into a university and may become a university.

For too long a time the normal school has represented a journey into a blind alley, but sound education of every kind demands academic freedom. The normal school demands freedom. There is no restricted sphere which the normal school is destined to fill. There is no exclusive field in education. Restriction means educational cramp and narrowness and lack of initiative and lack of outlook. Overlapping is healthy and invigorating. Restrictions upon a normal school are no more sane than restrictions upon a university or a college. The normal school demands liberty to give academic courses, paralleling the best of college work. Pedagogy itself is not in pedagogical form. Pedagogy as a subject to be taught does not now give and for a long time cannot give the mental virility which other subjects, such as languages, sciences, etc., give. But the normal school should exemplify the best of teaching. The normal-school student should become habituated to the best kind of work in academic and pedagogic subjects. Hence, the best results in the preparation of teachers are produced by having pedagogical and academic subjects taught side by side, interacting upon one another.

It must be evident that a normal school without facilities for preparing high-school teachers cannot by any possibility prepare good elementary teachers. The products of such a normal school are handicapped in the outset. They lack knowledge. They lack experience in handling the keys to knowledge. They lack skill in using the instrumentalities of instruction. They are likely to lack constructive ingenuity. The philosophy is unsound which would allow half-educated or poorly educated teachers in schools up to and including the last day in the elementary school, while demanding fully educated persons the next day the children are in school, i.e., the first day in the high school.

The elementary school needs scholarly teachers; indeed, it seems self-evident now that if any teacher in the world needs a college education, it is the grammar-school teacher, and I think no one in the world should be marked or honored with the stamp of professional teacher who has not the equivalent of a college education along with adequate professional preparation. Ideal teachers cannot be produced or grow up in a restricted atmosphere. The university and the college and the normal school should each prepare teachers of all kinds. It is only in the atmosphere of freedom that a really good teacher can be produced. Several normal schools in the middle west conduct pedagogical courses and college courses side by side. Their graduates by natural processes differentiate into teachers of various kinds. Much human energy is economized and incomparably better results are secured.

PRELIMINARY REPORT ON NEED OF INVESTIGATION OF THE CULTURE ELEMENT AND ECONOMY OF TIME IN EDUCATION

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In 1903 at the Boston meeting of the National Educational Association a committee was appointed in the Council of Education to report upon the desirability of an investigation of "The Culture Element and Economy of Time in Education." This committee, as a committee, has never reported beyond suggesting two or three topics for investigation. The subject was revived at the 1907 meeting of the Council and the writer was asked by the president to make a preliminary report upon it. It is to be remembered that this is not even a preliminary report of an investigation, but a preliminary report upon its desirability—an examination of the field to see if treasure is contained within its limits.

I am aware of the limitations to the value of the questionnaire as well as of its proper uses, and it has its uses. When such an investigation as this is proposed, the first step is to seek experiences, facts, opinions, and tendencies, as concerns the subject, and I believe unusually rich returns have been secured in this instance.

I sent out several hundred copies of a circular inquiry to men carefully selected among the following: presidents of universities; professors of education; superintendents of schools and principals of high schools; sociologists and business men. Eighty replies were returned. The number of replies from each group is in the order of the groups named, few being received from sociologists and business men, although a second special inquiry was sent them.

The questions, a summary of the opinions, classified extracts, references to articles, experiments, and investigations, and a valuable additional bibliography, furnished for this report by the National Bureau of Education, are submitted as an Appendix. Also, as a part of the report itself, is a condensed and reclassified list of characteristic quotations, showing the tendency of thought upon the various topics. The questions were made as searching as possible for the general view to be obtained. The replies as a whole show exceptional knowledge, conscientiousness, and interest on the part of the writers, and very little perfunctory work or mere disposition to find fault appearing.

I think I may here present a general impression of the whole, before calling attention to the questions and summaries.

The first impression is that there is real and widespread dissatisfaction with the results of education, especially as related to the time expended; that there is a growing consciousness of the need of adjustment to new ideals; that there is a demand for reinvestigation and reorganization. The people are ready for the leadership of any representative body that will attempt to reduce to some degree of order educational theories, methods, and standards. It is a surprise to me to learn that two-thirds of the correspondents believe the period of formal education should be shortened and that very many would place the age limit at twenty-four or earlier. All ask for a shorter limit, or better results for the time, or both. They recognize that since the early New England college, education has added eight years, the high school has taken the place of the college, four years have been set apart for the higher degrees; that the college today occupies an anomalous position without a well-defined function; that each unit of the system is yearly increasing its demands; that quantity is the ideal rather than quality. There is a disposition to call a halt along all the line and have an inspection. There is also a strong sentiment that culture must be redefined, that it covers much of the field which formerly was regarded as exclusively practical. The waste of time in elementary education, the need of reforms in secondary education, the need of definition of the college and of its relation to the professional school are emphasized with substantial reasons assigned. I was doubtful about the value of the question relating educational aims to social needs, but much wisdom is shown in the replies and a majority claim that real culture will not suffer if we pay reasonable attention to efficiency and economy of time. The last question asking for summary views upon the whole problem of the organization of education in this country brings out many valuable suggestions.

There is nearly unanimity of opinion that much time is wasted in elementary education, and a large majority claim that the time should be shortened. That there are too many odds and ends, topics and subjects, is a common criticism, the teaching and the lack of knowledge of ends aimed at having their share. Time can be saved by making a distinction between first-rate and tenth-rate facts; not trying to teach everything that is good; limiting the work to the tools of education; teaching content studies differently from the method in formal subjects; keeping educational aims in view. Upon the whole, the judgment regarding vocation studies in the elementary schools is conservative and good. A striking suggestion is to provide studies which take the place of the work children formerly did with their parents in the home, on the farm, or in the shop.

A majority favor a change of the high-school period, the preference being for twelve to eighteen. Some advocate two divisions only for the dominantly cultural education, since a distinction between the aims of the high school and of liberal college does not exist. Important reforms in the high school are freely proposed by nearly all. Amongst these are simplifying the courses, efficiency in character-making, directing the work toward well-defined ends, improving the teaching. I believe that, as noted under elementary education, some subjects should be presented in a way to invite and inspire and not for formal discipline, and that they should require little preparation. No greater mistake has been made in recent years than using the same rigid method for all studies. This practice is based on an exploded doctrine that attained great dignity a few years ago. Many people thank their stars that they did not get their literature and history in the modern elementary and secondary school. Vocational needs are generally recognized, and various schemes are offered for providing practical courses. A typical scheme is: grouped electives leading in practical directions, and offered in connection with the regular high school.

The length of the college course is put by the most at four years, but this is done by those who believe college entrance should be much earlier, and by those who would begin university work with the junior year, as well as by those who would preserve the college intact. Evidently they would first make a readjustment of the college and the professional school in accord with present tendencies, and leave for a later solution the less important problem of requirements for the A.B. degree. And here is the most significant fact of the whole report: one-half of the correspondents would have university work begin at the junior year—work that gives scientific power—with groups leading to the various professional degrees or the Ph.D. degree, the last two years counting toward those degrees; and would complete the professional work or Ph.D. work in two years more, or six years after college entrance. One great university has already advertised substantially such a plan. In the independent recommendations for reorganizing the college are some interesting plans; this voices the sentiment of many: "I would thoroly reconstruct the American college from top to bottom, for it retains its name having lost its character." They do not shrink from specifying the kinds of reform. One would adapt the college to the years sixteen, seventeen, eighteen, and nineteen. A few point out what business men really appreciate in the college graduate: the subjects of study, activities, moral and physico-moral qualities, practical traits, and show wherein the college as now organized fails to meet the demand.

The logical order of this inquiry may not appear at a glance: the time element is related to the culture element, and the culture element in turn is related to the needs and ideals of society today. At different times many educators have expressed to me the belief that relating the inquiry as above is a hopeless and profitless undertaking. However, I am unable to see how a thorough investigation of American education could fail to connect aims with needs. The history of education can be understood only in connection with the history of civilization: the conditions, needs, and dominant thought of different eras. We cannot understand our problem unless we study our educational aims as related to our civic needs—the time, means, and methods in view of results. Germany has had the wisdom to do this and aims its instruction toward service to state and society. I wonder whether we shall not yet re-examine Persian, Spartan, and Roman, as well as Athenian, education, and learn many things to our advantage. I wish to add here that, to the end proposed above, educators must throw light on their problem from public opinion when formulated and expressed by intelligent representatives. What are the needs of society today? If one may believe the "crowd of witnesses" they are, in plain terms, *efficiency*, *real culture*, *and responsible character*—nothing new, but peculiarly our needs at the present time, and the schools are not giving the people satisfactory results. These three demands of real life suggest the weakness of our education and the ideals to be emphasized. Nothing is changing so radically as the definition of culture, and this is shown in the replies to the fifth topic on the relation of the subject to the demands of business and society and the ideals of our civilization. All agree that smattering however extended is not culture, and that one may possibly cover the eight years of high school and college and not get an atom of culture. Culture, in my mind, is the insight and inspiration from knowledge; it is closely related to efficiency and character. People are demanding that young men be made ready for life, and that they be trained in a character that will stand modern tests, and that they shall gain real culture and not the mere show of it. I refer to the extended extracts in the Appendix upon this subject as well worth reading.

The topic, asking for summary views on the organization of education in the United States, gives much freedom and scope, and the answers are suggestive in many directions. The replies may be summed up under the heads: Modifications of the School System; Organization of the System; Vocation Element in Education; Preparation of Teachers; Educational Aims, Means of Educational Progress, etc. Some believe we are now nearly ready for the German plan. The need of eliminating comparatively valueless material thruout is emphasized. Great stress is placed upon organization, national and state, and the need of some central power or representative body that shall unify and standardize, and shall make use of discovery and the various means of progress. There is a general recognition of the need of practical studies throughout the school system, "branching off at different points from the central line of general culture." I have never seen more strongly emphasized the demand for forceful, wise, inspiring teaching—and this is not the only recent powerful expression of the same idea. The connection between means and the ends to be reached are duly discussed. The faults of election, the superficial quality of our education, the need of solidarity in our system, an interesting paragraph from Professor James on "Motor Education," the importance of recording school experiences and providing means of interpretation in a central bureau, are found in the list.

We are slow to adopt new ideas, and the views here represented will not be welcome to all teachers and professors. But I see nothing in all the tendencies noted which will not strengthen education, and dignify the position and work of the teacher and the professor. In a scheme of readjustment most college departments in universities (which now in spirit and in method are largely high-school departments) would become of university grade. Moreover, the scheme would include the ways and means to develop productive scholarship in this country. I recommend strongly a careful reading of the entire Appendix, for it is a compilation of up-to-date material of rich value upon the greatest present problems of education.

It must be understood that this is not a report—this is not the stage for it, and I have not presented many of my own views. I have given a summary of the returns to an inquiry. I am convinced that the conditions warrant an investigation, and under auspices of this body. The work should relate the time element to culture, and culture to social needs. Vocational training should be a part of the investigation, and also the question of organization of the educational system—indeed these are now a necessary part of the original subject. As to the things to be investigated, there is enough wisdom in the views already compiled; as to the methods of investigation, a properly selected committee will find its own ways. If this work is to be pursued by this Council a committee should be appointed ably representing elementary education, the secondary, the collegiate and university, the field of social science and of the science of education. Such a committee should enter upon a thoro investigation along the lines already marked out, co-operate with other national organizations that may be pursuing similar inquiries, formulate results, and unite in a final report with practical recommendations. This report with the Appendix is so much material for the work of such a committee.

CONDENSED SUMMARY

(*Taken from the Appendix to this Report*)

1. *a.* At what age should formal general and special education end, as normally marked out for attaining a professional degree or the Ph.D. degree?
   b. If the entire period of general and special education should be shortened, where should time be saved?

1. *a.* Two-thirds would shorten the period of formal general and special education, and nearly half of all the replies name the age limit as twenty-four years or earlier.

1. *b.* If the time is to be shortened, the order of preference is as follows: "All along;" in the elementary school and the high school; in the elementary school and the college; in the elementary school; in the college; in the high school and the college; in the college and the professional school. More than half of these preferences include the elementary period, and more than half include the college.

1. *a*

Most of the schemes for modification come under subsequent heads.

"The medium age of graduation from American colleges is twenty-two years and ten months."

1. *b*

"It is a pity that A.B. has been advanced two years in quantity since 1880, rather than in quality."

"Sacrifice the length of the college course rather than that of the professional course."

"The purely preparation stage is too long extended."

"Time should be saved by rapid promotions throughout the elementary school system, and by flexibility in the high-school and in the college course."

2. *a.* Is there important waste of time in elementary education?
   b. Should the period of elementary education be shortened? Where and how?
   c. What provision should be made in this period for "vocation" schools or studies? How?
   d. Please refer to experiments in this country or elsewhere to shorten the period of elementary education; to articles, papers, etc., bearing upon the subject, or organizations that are investigating any phase of it

2. *a.* Five-sixths say time is wasted.

2. *b.* Two-thirds think time should be shortened.

2. *c.* Less than one-third favor vocation studies in the grades.

2. *a*

"I suspect present results could be had in half the time now taken."

Time is wasted by—

"Lack of medical inspection of school children."

"Unmotivated and ineffective reading, writing, arithmetic, and geography."

"Covering unimportant and unpractical topics."

"Needless multiplication of the subjects taught."

"Hopelessly expending energies upon non-essentials."

"Scattering of pupil resources."

"Routine practice, odds and ends, 'fads and frills' generally."

"Lack of great, strong, enthusiastic, educated teachers."

"Lack of enlightenment regarding the ideals at which education aims."

2. *b*

Time can be shortened by—

"More careful pruning of the elementary program of study."

"Making distinction between first-rate facts and principles and tenth-rate."

"Casting out worthless rubbish."

"Not trying to teach everything that is good."

"Sticking to the elements of the subject."

"Pruning and vitalizing subject-matter."

"Confining period of elementary education to mastering the tools of education."

"Not overemphasizing military and political details in history."

"Putting less time on formal reviews."

"Not teaching content studies with the method suitable to the formal subjects."

"Fitting the course of study to the individual."

"Following social and concrete interests."

"Using industrial or manual training to vitalize academic instruction."

"Teaching children relations of what they are doing to ends that they desire to reach."

"Separating the brighter pupils destined to a profession and securing concentration and continuous progress."

"Introducing secondary school work in the higher grades."

"Beginning the study of foreign language, elementary algebra, constructive geometry, and elementary science, thus saving one or two years of the high school."

2. *c*

Provision for vocational schools or studies:

"Providing studies which take the place of the work children formerly did with their parents in the home, or on the farm, or in the shop."

"Placing greater emphasis on the practical aspects of nearly all the subjects."

"Setting apart from one-sixth to one-fourth of the time for some elective interest."

"Putting in manual training, elements of commercial practice, etc."

"Providing vocational training for defective and irregular pupils, who for these and other causes are over age."

"Converting first our legislatures and our boards of education, and next our teachers. (Within one year I have visited the schools in twenty-three of our largest cities, and I confess complete disheartenment in respect to further development in many of them.)"

"Employing for vocational work one who is a teacher as well as cook, plumber or dressmaker. (There are almost no such persons at present alive in America)."

3. *a.* Should the high-school period be shortened or should it be extended in either direction?
   b. Should it be six years—from twelve to eighteen, or fourteen to twenty?
   c. Are important reforms needed in high-school education? What?
   d. Should provision be made in this period for "vocation" schools or studies? How?
   e Please refer to important experiments in this country or elsewhere, and to articles or papers bearing upon the subject, and investigations now being made.

3. *a.* A majority favor a change of the high-school period.

3. *b.* A majority of these choose the period 12–16, a less number 14–20, and a few 12–16.

3. *c.* Nearly all think important reforms are needed.

3. *d.* The replies are practically unanimous in favor of vocation schools or studies.

3. *b*

"Six years, 12–18; for the first two years simply differentiating the work of the elementary school."

"At twelve specialization should begin either for vocation or college."

"Only two divisions of education that is dominantly cultural should exist, elementary and higher. At present the distinction between the aims of the high school and liberal college does not exist. The student at twenty should be ready to enter a professional course."

3. *c*

Reforms of high school are—

"Simplify course of instruction; it is not necessary to take all the sciences in a high school."

"Adapt subject-matter to the pupils' interests, capacity, and mental development."

"Concentrate on a few valuable studies. Cease multiplying subjects."

"Have less educational padding."

"Make college-entrance requirements reasonable."

"Emphasize, like the Greeks, the value of continuous and systematic attention to the development of the human body."

"Banish from the high school elementary attitudes and relationships."

"Emphasize elementary ethics."

"Emphasize character elements."

"More training for character; less of the purely bookish elements."

"More thoroness, initiative, and moral emphasis."

"Emphasize history, civil government, and economics for citizenship."

"Make more real; less formal."

"More vocational; less textbook work."

"More training for life, citizenship, vocation, and service."

"Organize courses on basis of general vocational activities, with so-called culture coming from the wisdom of knowing what the world is like, what it wants, and what one can do about it."

"Correlate industrial studies with what is known as purely academic studies."

"Recognize the differing cultural, vocational, and social ends of various groups and prepare for these."

"Provide for a classical, a general-scientific, a commercial, a domestic-economy, a manual-training, or a technical course."

"Provide continuation or night schools for special cases."

"Improve quality of teaching."

3. *d*

Provision for vocation schools or studies:

"Adding hours for industrial work without loss to regular high-school work."

"In connection with high schools."

"Vocation studies as electives."

"In the surroundings of the school, rather than under the conditions of apprenticeship."

"Spending one-fourth to one-half the time in vocation work."

"Manual training branching into trade activities, or commercial training, definite, thoro, practical. In some cases part time might be spent in actual shop or factory."

"By grouping electives, by providing in connection with the regular high-school work facilities for training in simple business methods, wood- and iron-working, use of tools and simple construction of buildings, elementary principles of gardening and farming, sewing and cooking, stenography, etc."

4. *a.* What should be the length of the college course?
   b. Would you advocate the following scheme?
      (1) To end college work with the sophomore year but allow four years as now for the A.B. degree.
      (2) To let university work begin at the junior year—work that gives scientific power—with groups leading to the various professional degrees or the Ph.D. degree, the last two years of college counting toward those degrees.
      (3) To require two years of college for admission to all professional schools.
      (4) To complete the professional work or Ph.D. work in two years more or six years after college entrance.
      (5) To let the college do the first two years of the professional work instead of allowing the professional school, as now in many cases, to do the last two years of college work.
      (6) To consider the possibility of advantageously building the engineering school upon the first two years of college.
   c. If not in accord with the above, please describe your own view.
   d. From the standpoint of business men, so far as you can judge, what is the value of a college training for young men who are going into business?
   e. Please describe devices now in use to shorten the college course; refer to any articles or papers upon the subject and any investigations now being conducted.

4. *a.* Nearly all favor four years, though a few advocate three years or dividing the college between the high school and the university.

4. *b.* It will be seen from the summary which follows that fully half favor this scheme in general—to begin university work with the junior year.

4. *b.* (1) One-half favor ending the college work with the sophomore year, but allowing four years for the A.B. degree.

4. *b.* (2) One-half would begin university work with the junior year, and count the last two years of college toward higher degrees.

4. *b.* (3) Most of the replies would require two years of college for entrance to the professional schools.

4. *b.* (4) One-half would give professional degree or Ph.D. degree in two years after the B.A. degree.

4. *b.* (5) Two-thirds would have the college do the first years of the professional work.

4. *b.* (6) A large majority would build engineering on two years of college.

4. *d.* Two-thirds think college preparation is valued by business men, tho the opinion is usually personal.

4. *a*

Length of college course:

"The German *Gymnasium* and university plan is more rational than our high school, college, and university or professional school. Annex the first two years of the college to the secondary school and allow the students to enter the graduate or professional school of the university at once."

"Professional work should undoubtedly begin at twenty in the majority of cases."

4. *b*

Beginning university at junior year:

"I have recommended (2), and have made a report to our Board of Trustees urging its adoption here in 1913, the freshman and sophomore years to be required for entrance."

"Keep four years for those not aiming at professional degree, but have last two years for the others count for professional degree."

"In professional and technical schools I believe that the best of general culture will yet be found in the biographies of leaders in the lines studied, and in a history of the development of the occupation and the sciences and social life related to it."

"The chances are in favor of the work being better done if the college course should take on two years of basic science training for medicine, rather than that the medical school should pretend to do the scientific work which is almost certain to be done better in a university laboratory."

"The colleges and universities (so called), especially in the east, but also elsewhere, have deteriorated, if we measure their standards by their educative value. I am only voicing the judgment of the most experienced and thoughtful when I say that fully one-half of all the courses offered, and the work done, is of almost no educative value whatever. I would, therefore, thoroly reconstruct the American college from top to bottom; for it retains its name having lost its character. (1) I would reduce the number, and increase the thoroness, in the subjects required for admission; (2) reduce the time to three years, from seventeen to twenty; (3) reduce the foolish and expensive and needless exhibition of courses offered, making them much fewer, and much more thoro; (4) make two-thirds or three-quarters of the curriculum required—compelling such studies in language and literature, mathematics and physical science, and in the psychological sciences, as are preparatory to and introductory to professional and Ph.D. studies; (5) clean out the whole hotch-potch of courses which have the name, but can never have the substance of true professional studies. Business demands trained and disciplined men; if the colleges would do this of course their graduates would be in demand in business circles."

4. *c*

Other views of organization of college and university:

"I would save the two years needed for the college course by simplifying the grade work and shortening the time these two years."

"I would suggest the following scheme:

Elementary school, years of child's life, 6, 7, 8, 9, 10, 11.
High school, years of child's life, 12, 13, 14, 15.
College, years of child's life, 16, 17, 18, 19.
Professional, Ph.D., years of child's life, 20, 21, 22."

"The University of North Dakota gives additional credits for superior work, thereby shortening the time for excellent students."

"Group subjects as minor electives or minor requirements about a major core of subjects in which advanced work must be done, and which may even make the group pre-legal, pre-medical, etc."

"It is easily possible to make the college course so easy by elective courses and avoidance of advanced work that it never forces the choices which should be made, say even for, or against, future study and a learned profession."

"The graduate school loses educational perspective when it assumes to influence the college course."

4. *d*

Value of college for business:

"None. I refer to the typical business man, and not to the great business man. The latter unusual person is in favor of a sane college course in history, languages, sciences, history courses, economics, English, very thoro; German, biology, physics, chemistry, history of philosophy, algebra and geometry with trigonometry. This course is to be taken by a youth who takes part in the social and athletic life as a doer of things. Business men as I know them—manufacturers, wholesalers, railroad men—desire in the young man certain moral qualities—obeying rules and instructions implicitly, promptness and punctuality, arithmetical perfection, rapid and legible handwriting, facility and accuracy in English. I call these "moral" qualities and so they seem to me; and they are glad to get also the young man who knows a great deal of geography, of civil government and of general information. They desire also certain physico-moral qualities, such as cleanliness, neatness, and orderliness. This is to say, they desire health, strength and discipline. They like frankness, openness, courage toward themselves and discretion toward all others. Our school courses cannot develop these qualities for two reasons: our teachers do not themselves manifest them, and our courses are not designed to produce them."

"Let the college course be sincerely and seriously a part of vocation, too definite to attract the "elective" students; too hard to attract the man who is too lazy to go to work at a serious business; too exacting to be satisfactorily done by the unmotivated trifler who goes to college, kindheartedly acquiescing in his parents' fond wishes, with a superior indulgence of their ambition."

"They (collegemen) think, few people (or educated people for that matter) do. They are systematic. They have many bits of knowledge that are useful sometimes when least expected."

"So far as I can judge business men value highly the training which young men who are going into business get in college."

"Without question the men with college education who have gone into business have soon forged to the front. I have been teaching for a number of years in manufacturing centers and I know that this condition is true in great manufacturing plants."

5. How does the whole problem of culture and time elements in education relate itself to the demands of business and society today or to the ideals of our civilization?

"Culture should relate to fundamentals in society, business, civilization."

"The problem is one that affects and is affected by social and business conditions."

"A certain amount of conformity to standards set by modern social forces is necessary, else the young graduate will find himself in a world for which he is unprepared."

"That subject is most cultural which is most serviceable to humanity from a dynamic standpoint. All industrial, vocational, and other subjects, when studied and realized in life for a richer life and deeper civilization are cultural and at the same time meet the business interests of life. The business interests think too much is consumed by education without equivalent results. It is very natural for us to interpret with our experiences which are those of the educational cloister."

"The practical demands of life and the interests of culture are congruent in this, that nothing which is valuable merely for the training it gives is worth pursuing. The instruments of culture are practical means to a large, rich life. Sixteen years of school work preliminary to professional study is unnecessary and hostile to the time interests of culture."

"For the sake of business I would lay far more stress than is now put on the studies that deal with man and history, what man has done—on literature, what man has thought and felt. The best way to adjust students to the intelligent demands of business is to adjust them to the interests of society, and, so far as may be, to the ideals of our civilization."

"Give up archaic ideas regarding a distinction between culture and utility. The university should be a place where everything useful under the sun is taught, and everything useful has a place in the university, and anything useless has no place in it."

"The drift is away from alleged disciplinary effects to studies that combine both discipline and useful information."

"Culture will come best by an enrichment of vocational life. This is real culture. Culture has been a borrowed thing since the Romans began aping the Greeks. Vocational preparation is entirely in harmony with culture in the best sense, and there is doubtless plenty of time for each."

"Business, society, civilization, demand of the world's workers a certain minimum of equipment and maximum of achievement. Society is the loser if academic requirements carry a man past the time of his greatest energy, efficiency, and adaptability."

"There is evidently a need of squeezing a lot of water out of our curriculum."

"The modern demand is for young men and women to get into things while plastic and full of the sense of adaptation."

"It is desirable that the time element should not seem too extended, in order that we may persuade our youth not to yield to the temptation of neglecting education, particularly so-called cultural education."

"Make the training ever richer, better, more effective, rather than shorter."

"I think that the true ideals of our civilization demand high culture and an abundance of time in our education schemes. One great need of our country now is men who can think straight."

6. Please give your views briefly on the whole subject of the organization of education in the United States. Modification of school system.

"If it were possible to reorganize the whole of education in the United States now, I believe that we are more nearly prepared for the German system than we ever would have been before now."

"We have shoved elementary education too far, and crowded our universities to the wall."

"There are four units in our educational system; each element magnifies its own functions; and each unit seeks to control the units below itself, and to increase still further the burdens they are carrying."

"I think it desirable that a professional direction be given to the upper half of the four-year college course, or that specialized studies leading toward original research begin in the junior year."

"One correspondent gives instances of students, prepared privately, non-essentials being omitted, who recently entered college at fourteen and fifteen and graduated successfully."

"I would advocate considerable diminution of the quantity element in college-entrance requirements."

"We must eliminate unnecessary subject-matter in elementary subjects; must have different kinds of high schools to meet the needs of different kinds of pupils."

"We are trying to do too much in our colleges, secondary schools, and in our grammar schools."

"I believe the greatest waste is in the dilettante attack on the elementary subjects in the late primary and the secondary schools. A differentiation in the middle of the high school which shall give an optional trend similar to the Gymnasium and Real Schools in Germany might be desirable."

ORGANIZATION OF THE SYSTEM

"Education today from the kindergarten to the university is lacking in effective organization."

"I would have the Commissioner of Education a member of the President's cabinet; would establish a great national university at Washington; would have a state university in every commonwealth except New England, and the incorporated colleges and universities associated with it in the closest relations that can be secured; would have the superintendent of public instruction the head of the state system."

"The educational system in a state should be recognized as a department of state government. State systems should have some sort of federal co-ordination in a bureau of education at Washington."

"We should have a strong, central (representative) national body whose duty it should be to unify standards for primary, secondary, academic, and professional education."

"Colleges and universities need to be defined by law. It should be possible, as in Germany, for a student to go from any secondary school in any state, to any college in the land without loss of time."

VOCATION ELEMENT IN EDUCATION

"The tendency is to get away more and more from the monastic system and to educate men and women more in real life, for real work. The greatest defect of our educational system is this neglect of those who have to go to work at about fourteen years."

"Dropping out of school is because of the violation of the natural impulse to do, keeping it repressed."

"Some way should be found of getting part of one's education while engaged in productive work."

"I would have vocational courses of various kinds branch off at different points from the central line of general culture."

"I would make it possible for a B.A. graduate to go from the Greek recitation room to the blacksmith shop or carpenter shop, and have the one line of work count equally with the other toward the B.A. degree."

"People think a trade school a very good thing for their neighbor's sons."

BETTER TEACHING

"One deplorable defect in our system is the lack of scholarship, breadth, and training on the part of the elementary school teacher, and to a large extent on the part of the high-school teacher."

"We need more men in the schoolrooms of the upper elementary and high schools. We need better and many more professional schools for teachers."

"The lack in education is rationality. Instructors have not much to build on. Hence in taking a boy in charge it is a matter of memory."

"Teachers of the rural schools of the nation are not as good as a class as they were twenty-five or thirty-five years ago."

EDUCATIONAL AIMS

"We might express our educational aims in the four specific fields of physical, vocational, social, and cultural ends, and then make our adjustments to the needs of varying groups with which society and education must deal."

"No school that is regarded as primarily preparatory to some other school has yet achieved a real educational reason for being. I should like to see the college allowed its place as a divergent limb of higher education whose integrity is to be tested by itself."

ELECTIVE SYSTEM

Education Superficial

"In our overemphasis at times upon the rights of the individual, we are making serious mistakes in our elective system."

"In general I think education as it is generally pursued in the United States is inclined to be superficial."

Solidarity of System

"I believe in the unity and solidarity of our educational system. Professional, technical, trade, and continuation schools should be as closely co-ordinated with the elementary schools, high schools, and colleges as possible."

MOTOR EDUCATION

"I have a suspicion strong enough almost to amount to a conviction that book work up to the age of thirteen or fourteen ought to be almost abolished, and that the basis of education up to that age should be almost exclusively motor—dancing, games, music, drawing, manual training of every sort, with reading and writing, taught early of course, and ciphering, but very little methodical instruction out of books."

MEANS OF INVESTIGATION OF PROBLEMS

"Questionnaires will never settle great educational problems in controversy. Every school should be a laboratory, or should at least be preparing materials for educational research. Every county, city, and state superintendent of education should be in position to tell truthfully and legibly the experience of the pupils and teachers under his supervision. The national commissioner of education should be able to collect and to interpret facts as to methods and results in all parts of the United States."

"I urge strongly more attention to current-school records, so devised as to make possible an analysis of experience."

REPORT OF COMMITTEE ON CO-OPERATION WITH EDUCATIONAL ORGANIZATIONS IN OTHER COUNTRIES

W. T. HARRIS, CHAIRMAN

Your committee, appointed at the last session of this Council to consider and report what steps may be possible toward securing co-operation with the various civilized nations of the world for the promotion of education, would hereby respectfully offer the following general report together with supplementary reports, setting forth, briefly, a preliminary survey of the conditions of our inquiry, together with reflections and suggestions from different members of the committee, separately added to the general report, with a view to broaden the scope of the inquiry, and secure fuller expression of what may be called the prevailing public opinion among our teachers as to the profit to be gained by a closer knowledge of foreign schools.

Your committee assumes in advance that there are three classes of things in our school system, and in any national system, which must be discriminated and kept distinct thruout our investigation. These three classes of things are graded according to the degrees of community or divergence to be found in the constitutions. governmental policies, and industrial necessities of the nations in question.

1. It is obvious that the first class of things in our school system to be considered will include what represents the purposes that all civilized nations have at heart and can teach as well or better than we do.

2. This leads next to a further discrimination, within the first class, of a twofold list of educational subjects and disciplines: (*a*) What things do we of the United States teach better than other nations and with such excellence of method that they could profitably learn from us? and (*b*) (What is more important for us to know) the methods better than ours which we may learn from other nations.

3. There is a class of subjects and disciplines that we teach in our schools which cannot on any account be permitted in foreign nations by reason of different national purposes from ours. This is a comparatively small class of things for nations of Anglo-Saxons, kindred as they are by blood, but it is a larger class with Romanic nations of Europe; and a still larger class with Slavonic nations; and these forbidden lessons and disciplines amount with some Asiatic nations to a class so large as to contain an all-inclusive inventory of what we teach as to nature and man, and of what we insist upon as to school discipline and rules of behavior.

In China and in any nation with what we call a patriarchal form of government, so much stress is laid upon obedience to parents, to elder brothers, to petty officials, and to the princes of the empire, that American parental authority and our slight ceremonial respect to our government officials seem altogether shocking, and indeed fatal, if adopted in place of the strict family etiquette which takes the place in that country of moral conscience, statute laws, and religious ceremonial.

What we easily recognize as pestilent and destructive in our own code of family and school discipline, should it be transplanted to any part of China or India, is less and less pestilent if transplanted to western Asia and Europe. And yet, even in Russia, as Mackenzie Wallace tells us, there is so much patriarchal etiquette left, that the surviving grandparent receives the wages or other income of any son or grandson, and distributes it to the entire family without reference to the actual earners of the wealth or wages. Who has not observed survivals of patriarchalism in the parental ties which fix the succession of both nobility and royalty in the monarchies of western Europe? The laws of succession and primogeniture are rigidly taught from the nursery thru all grades of schools up to the entering upon a vocation in life, and even in the ceremonials of religion. American family and school education would in a brief time destroy the very foundations of the English caste system upon which is built the threefold royal and noble and ecclesiastical structure of the governing power of that country.

Commencing our studies with the far East, it is not so difficult to trace out a progress in branches of the course of study in school from a rigid prescription of sacred formulae (which must be lodged in the memory of the school pupil) onward and upward until something of the rationale is permitted to be learned, and more self-activity is expected of the pupil. In Europe Christianity has caused to prevail as a fundamental dogma the equality of all human beings before God. Doubtless this idea has shown its most important result in undeifying nature and making the work of a scientific inventory possible. A progressive emancipation follows from mere tradition and from superstition; but, for fifteen centuries, inventories made by Greeks were memorized and repeated like the texts of Confucius in the far East without attempt at verification. In fact, for nearly all of Asia, scientific method was profane and sacrilegious; and even the Mohammedan church of today believes that western European science is accursed of God tho it possesses some magic power of victory against Allah, and his faithful Moslems.

Even in Russia, with Greek Christianity, labor-saving machines, that modern natural science has invented to conquer nature and provide food, clothing, and shelter without drudgery, are often want only destroyed by peasants who see only loss of employment in store for mere hands if machinery shall come into use.

Turning to the great powers of western Europe, Germany, France, and Great Britain, we come to peoples in the van of civilization and with national purposes more in accord with our own. Caste exists there, to be sure, but side by side with caste there is provided a ladder of merit whose rounds are services to the state—industrial, civil, and military services—which can be climbed by the brave, the industrious, or the talented individual tho born at the very bottom of the ladder, and he may lift up his family with him into a higher caste that will give permanence to his achievement. But it is his good will and his industry alone that furnish the ladder. The castes which have been founded long ago are now rewarded by preferment that comes by ordinance and statute, and by the will of the monarch, but is frequently a reward not earned. There are obstacles thrown in the way of the lowest peasant, by the accident of birth, which prevent him, unless exceptional in his will power, from changing his caste by climbing to a higher round.

Here in America it is so easy to gain wealth, and so easy to serve one's social community by a substantial service, that we have come to a public opinion which makes us critics, and sometimes caviling critics, of our western European friends and neighbors; and the consequence is not favorable to our profitable *co-operation* in educational studies. This hurts us because it veils from us the true power of the three giant nations with whom we have to co-operate in supporting civilized public opinion around the globe, and in arriving at a joint public opinion which contains the most humane elements. It is not possible for us to co-operate with Germany, France, and England in our educational interpretation of history. The German boy's mind is full of history antagonistic to France, and the French boy cannot read history as the German and English see it; and we all know what our Fourth of July orators have to say of our mother country, England, and its king, George the Third. So of literature, each nation has its own poetic works of art which express its completest view of human nature, and the barrier of an alien tongue prevents German, French, and English from getting a co-operating literature from one another. But fortunately, for the United States, it makes English literature the staple of its education in the school and the home, and there is an ever-increasing participation of Great Britain in the educative influence of the literature of British colonies.

In science there is a great common field of intellect and insight, open alike to Germans, French, British, and Americans; and this, more than anything else, is making our co-operation in the education systems of our European congeners more and more effective.

Organization of people's schools with us uniting the rich and the poor in one school coming from all rounds of the ladder, this, and our coeducation of the sexes are not subjects on which we can expect the entire sympathy of the governing classes of Germany or France or Great Britain, altho we may receive a very polite hearing. That our people's schools have not grown more and more to show a cleavage from the schools of wealth and official position surprises our European educators, and furnishes them a warning against our entire educational organization. Your committee believe that it is not profitable for us, in reaching out, to take the hand of a foreign educator, to give foremost place to such items of our inventors as imply a national convulsion—a revolution, in short—if established over there in the foreigner's land.

It is better for us to see clearly the real foundations of strength in Europe—the foundation which implies a competitive struggle to lift up the lower classes along the ladder of the creation of wealth, and the performance of exceptional public service.

All of which is respectfully submitted,

W. T. Harris, *Chairman*
J. M. Greenwood
Elmer Ellsworth Brown
Joseph Swain
Committee

POSSIBLE CO-OPERATION BETWEEN THE EDUCATIONAL ASSOCIATIONS OF DIFFERENT COUNTRIES

ELMER ELLSWORTH BROWN, UNITED STATES COMMISSIONER OF EDUCATION WASHINGTON, D. C.

The suggestion which I made to this Council one year ago, that steps be taken to bring the National Education Association into closer co-operation with similar bodies in other lands, was offered in the conviction that the greater part of the work of education in all lands is one work, and that all teachers among civilized peoples have a common cause. There is abundant ground for this belief. The legislative bodies of many nations have found enough of common interest to make possible an Interparliamentary Union, and that international body has profoundly influenced the course of recent history. Yet parliaments are the centers of positive nationalism. We may fairly expect to find more elements of unity in the schools of different nations than in their legislatures. And such undoubtedly is now the case.

The world-relationships of universities have been recognized, with varying clearness, for seven or eight centuries. The earlier development of schools for the people was more closely connected with the rise of modern nationalism. This gave us higher schools which emphasized unity, alongside of lower schools which emphasized difference. Such a distinction of course goes down to the fundamental constitution of society. It cannot be maintained, as a principle of sharp separation, where the distinctions between social classes have been smoothed out or are in the way of disappearing. Nations which have a traditional enmity to keep alive toward some of their neighbors—a memory of ancient quarrels which colors all their history—are at a disadvantage in this regard. In so far as class distinctions persist in such societies, with something of the finality of caste distinctions, a lower class will be taught to hate another people while the highest class is learning to understand other peoples.

But this condition can hardly continue, unmodified, in our modern world. The many care to learn what the few have known. The scientific spirit forbids us to teach in the lower schools what is untrue from the standpoint of the higher schools. Then, there is a New Humanism in the world, which is surely spreading abroad. This new humanism recognizes the fact that to know and understand living men, both individuals and nations, is a great part of any complete education. This humanism tinges all of the social and the international striving of our time. It tinges our education. I have had occasion before to speak of one little symptom of it—a straw on the waters of our primary schools—in the wide popularity of that children's book, the *Seven Little Sisters*, by Miss Andrews. And for more pretentious indications of the same current, you would not have far to seek.

We live already in a world in which men are trying to understand one another. Men are trying to understand their neighbors, and that is the better part of democracy. Men are trying to understand other peoples and nations, and that is the foundation of our new world-politics. The reason why we may hope to understand the rest of the world, the reason why we even care to understand the rest of the world, is that our differences stand out from a background of agreement, a substratum of ultimate unity. The differences are picturesque and interesting, and at times they command the whole field of attention. Without national peculiarities and even oppositions, our world-unity would be a poor thing, a dull and insipid uniformity. But we must not forget that, after all, the differences get their life and worth from that underlying unity. The time has come when men can give attention to the common human purposes of all the tribes of men without suspicion of treason against their own government. In our own land this is pre-eminently true. As Mr. Stead has said of us, "America is the one great international country of the world."

When Professor Payne of the University of Virginia a few years ago made his comparative study of the public elementary school curricula of the leading culture nations, he found an approximate agreement in the subjects of instruction and in the relative amount of time devoted to different subjects in the schools of representative cities. Aside from differences as to the inclusion or exclusion of religious doctrine, the most important variations were those relating to the language employed and studied and the content of instruction in the national history and literature. Even here the instruction in the schools under consideration might readily be compared with reference to its form and the principles guiding the choice of materials in those subjects. So striking, indeed, was the agreement which his study revealed that Professor Payne was led to make the following remarks:

> It is to be feared that our educational theorists have sometimes excused themselves from making a comparative study of these different curricula by an exaggeration of the supposed disparity of aim and the consequent improbability of gaining suggestions of worth. The tables . . . . show such a slight difference of curricula in the elementary schools of the several countries, that it makes one suspect either that the aim of education does not determine what shall be studied, or that the aims of the several countries do not differ as much as has been supposed.[1] No one can fail to be impressed with the fact that the general principles which govern the selection and arrangement of the subject matter of the elementary curriculum are practically the same in the four educational systems here studied.[2]

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[1] Bruce Ryburn Payne, *Public Elementary School Curricula.* Silver, Burdett and Co. (1905), pp. 15, 16.

[2] *Ibid.*, p. 182. The four educational systems studied were those of the United States, England, Germany, and France

Without doubt, national differences must still be more influential in determining the teaching of the lower schools than in that of the universities. In some degree this difference must, I think, be regarded as permanent. A strong nationalism and even a certain wholesome provincialism are to be cherished in those schools. But it is quite as important, and is in truth essential, in this modern age, that the lower schools preserve their continuity with the teaching of the universities and their loyalty to those common aspirations in which the nations of the world shall be able to understand one another.

I hope that our great National Education Association, in its unquestioned loyalty to our national ideals, may take steps which shall promote the good understanding now gaining ground among the nations of the earth. Let us send our emissaries to confer with similar bodies in other civilized lands, as we have so often welcomed foreign teachers in our great annual gatherings. Let us take our part in setting up world-standards in the domain of culture and education. Such a movement, I believe, will make for peace; but if so, it will accomplish that end by promoting one of the best tendencies in modern education, a humane tendency, which may be summed up in the saying, Let us see if we cannot understand one another.

DISCUSSION

Anna Tolman Smith, National Bureau of Education, Washington, D. C.—What is in my mind to say is in the nature of reflections excited by the subject under consideration rather than a discussion of the views already unfolded. In my studies of education I have been deeply impressed with the differences in the administration of this interest in the leading nations. France, for instance, presents an example of extreme centralization; our own country, the extreme of local independence; while England, at this moment, offers an example of a happy medium between the two. Now, these differences have grown out of historic conditions and that indefinable something that we call national genius or temperament. They are fundamental, and they affect the teachings of a whole group of subjects, ethics, civics, history and literature, and—in nations where church and state are one—the teaching of religion. The national mode of dealing with these subjects cannot be changed nor transplanted; neither is it possible to overcome that national sentiment which is the all-pervading essence of these differences. You cannot fight a sentiment because you cannot set it up as a target and shoot at it.

We have a national school sentiment, sometimes jocosely called a Fourth of July sentiment. The genesis of this sentiment was revealed to us in the address of our English visitor, Mr. Brereton, on vocational aims in education. In a striking passage he pointed out that the "technical end" of the education of the directive classes in England was the "knowledge of men and mancraft." That is, knowledge of the motives which move men as set forth in their self-revealing literatures, and of the social orders and institutions out of which states are formed. No other nation so perfectly imparts this knowledge as England. Now, this underlying idea, the idea of "mancraft" as the aim of education for the directive classes, was brought to this country by our English ancestors and in the spirit of sound democracy we have adopted it for all the people, since all are admitted into the directive class. This is our heritage, a precious, a sacred heritage, and we feel an instinctive fear; our national consciousness is alarmed at the thought of change in this vital matter; at the bare suggestion that any American child shall be deprived of his share in the training that makes for directive power.

There is, however, a deep significance in the recent common impulse of the principal nations, that is those in the current of our own civilization, to turn their administrative forces to new educational ends; to new, but common, ends, resulting in part from economic pressure and in part, let us believe, from the irresistible growth of humane ideals.

The purpose that is at present uppermost in our thoughts is that of industrial, or vocational, aims in a system of public education. The problem is becoming acute in some parts of our country and we are interested to see what other nations offer in the way of solution. Germany has a settled policy in this respect, but we cannot assimilate the type to our freer life. France has an elaborate graded system of technical schools, but as yet we follow France only in matters of fashion. This very word emphasizes a deep distinction between us. We have a craze for fashions, but fashion is not a principle in our national life, a part of our consciousness of power as it is of that of France; hence a large part of French technical training has motives impossible to us. In respect to this problem of vocational training, England is nearer to us at this moment than any other nation, and by reasons of the prevailing social distinctions the problem presents a simpler form in that country than in our own.

The English system of public, or popular, education is based upon the idea of class, the so-called elementary-school class, definitely estimated at six-sevenths of the population, three to fourteen years of age. It is proposed to separate these children at about twelve years of age as follows: drawing off into secondary schools those whom it appears may readily be raised to the higher social and industrial plane; transferring to higher grade elementary schools the brighter pupils of the elementary schools who can continue their training up to sixteen years of age; and leaving the remainder in the ordinary elmentary schools. We should not tolerate such a separation of our child population at the early age of twelve years, but this proposed segregation, in no way disturbing to English opinion, has served to fix the attention of some of her ablest men, educators, administrators, and business men, upon "the higher elementary schools," with a view to determine the kind of education that shall orient these schools, as it were, toward vocational ends.

The discussion of the problem, thus narrowed down and unclouded by sentiment, is equally illuminating whether the line of separation is placed at twelve years of age, as proposed in England, or at fourteen, as it probably will be with us. We see at once what is implied, a school linked at every point with the grades, offering two years' specialized training, less bookish than our classical high schools, and more craftsmanlike than our manual training high schools. Is not this after all a municipal, rather than a national, problem?

But the directive class in England is constantly increasing with a proportionate increase in the number of those who, like ourselves, demand training in "mancraft" for their children, and oppose early specialization. Hence, the English discussion of vocational training faces both ways and becomes, therefore, doubly significant to us.

In the moment that remains, let me allude to a common movement toward social services auxiliary to the schools. Here also England has a lesson for us in the after-care committees, such as have been formed in Birmingham and London, to look after children who go out from the schools for the mentally defective. In London, also, employment committees of trade representatives are co-operating with school managers in the effort to find work for ordinary children. As one authority well remarked, "the extraordinary will be amply able to place themselves." Here, I believe, is a practical suggestion for our women's club.

HOME ECONOMICS IN ELEMENTARY AND SECONDARY EDUCATION

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The ideal American home to which preachers, moralists, and most ethical writers are attempting to confine the labors and interests of women was a place of busy industry with occupation for the dozen children, and all the helpers to be gathered within its precincts—a miniature community. The children in it learned by doing. The interest of one was the interest of all.

In the ideal home children are taught morals, manners, and habits by the loving care of father and mother and the somewhat less gentle means of elder brothers and sisters—all done in that privacy which the very word home signifies. They were not shamed by rebuke in a public hotel or on a street car. The parents felt a responsibility—too heavy, the children often thought—for all that the "nursery of good citizens" meant to them.

When we women are told that the place for us is the home it is this picture that the advocate has in mind. But in its entirety the reality no longer exists—gone out of it are the industries, gone out of it are ten of the children, gone out of it in a large measure that sense of moral and religious responsibility which was the keystone.

Home ideals, as developed in America by the Anglo-Saxons in the nineteenth century, are certainly fading away and are not, as yet, replaced by a definite national purpose. Luxury, carelessness, idleness, and a pursuit of ready-made pleasure have taken the place of thrift and responsibility. Today, as a rule, neither morals, manners, nor good habits are taught in the home, when it exists and certainly not in the hotel and railroad train.

The methods of work prevalent in the home environment are mediaevally wasteful of time, energy, and money, and because this is blindly realized the people are restive.

Intelligent and thoughtful observers admit the conditions; disagreement comes with a discussion of remedies.

The first and most obvious course is a blue-law compelling parents to train their children according to the accepted ideals of the nineteenth century. The second is for the school to take the place of the negligent home. The third alternative toward which the country is fast drifting is for all education and training of children to be assumed by the State for its own protection.

If the state is to have good citizens, it must provide for the teaching of the essentials to a generation that will become the wiser mothers and fathers of the next. Therefore, even if we regard this as only a temporary expedient, we must begin to teach the children in our schools, and begin at once, that which we see they are no longer learning in the home.

Morals, manners, and habits may be most easily, naturally, and effectively taught by the very means used in earlier days through domestic science courses, if they are properly planned and intelligently carried out.

No state can thrive while its citizens waste their resources of health, bodily energy, time, and brain power, any more than a nation may prosper which wastes its natural resources.

America today is wasting its human possibilities even more prodigally than its material wealth. The latter deficiency is being brought to a halt. Shall the human side receive less attention? A sharply divided line between home and school is no longer clearly drawn. Parents' associations are being formed everywhere and co-operating with the school teacher. To what end? To the better moral and intellectual atmosphere of the home. Physical education has had its vogue, but too much as an endeavor apart, not as a necessary element in the whole.

The pedagogical world is now becoming convinced that physical defects are more often than not the basis of mental incompetence and this leads logically to the teaching of the laws of right living in a practical way, not merely as lessons from books but as daily practice. This must also go into the home where the most of the child's hours are spent. It is as useless to expect good health from unsanitary houses as good English from two hours' school training diluted by twelve hours of slovenly language. Hence the imperative need of such teaching and example as can be put into practice and since house-to-house renovation and change of view is impossible, the school must provide for teaching to live wisely and sanely as well as for clear thinking and aesthetic appreciation. Practical hygiene, food, cleanliness, sanitation, all must eventually be exemplified by the schoolhouse and taught as a part of a general education to all pupils, boys and girls.

If this sounds like socialism, let us not be afraid but educate for five or ten years all children, so that homes may be better managed and then it is to be hoped there will be no need for such school training. To live economically in the broad sense of wise use of time and money as well as of bodily strength is the great need of the twentieth century. This is practical economics. This is something which cannot today, except in rare instances, be learned at home for conditions change so rapidly that grown people may not keep up with them. Mothers' ways are superseded before the childern are grown.

The school if it is maintained as a progressive institution and a defense against predatory ideas is the people's safeguard from being crushed by the irresistible car of progress. I repeat, standards may be set by the school which will reach and influence the community in a few months. Such standards should be a means of safeguarding the people from panic as to their own health or wages and this leads to the most important service which a teaching of domestic economy can render to the people in giving them a sense of control over their environment, than which nothing is so conducive to stability of ideas.

To feel oneself in command of a situation robs it of its terror. A great danger in America today is the loss of this feeling of self-confidence with which the pioneer was abundantly furnished. A certain helpless dependence is creeping over the land, because of the peculiar development of resources, which must be replaced by a sense of power over one's environment. This power has its limits, but they are wider than the people in school today realize.

The teaching of this control over living conditions costs, and efficiency is at the root of all social progress today. Shall it be shirked because it does not conform to older academic ideals? Will not the college and university come to the rescue by accepting for entrance certain fundamental knowledge which cannot but make brain power? Will our higher schools take the risk of retarding not only the country's development but of limiting the character and force of its people?

I come before you, Gentlemen of the Council, as the chairman of the Lake Placid Conference on Home Economics, in support of our various requests, covering a space of ten years, that your attention be given to the suitable and effective method and content of courses in domestic economy for the elementary school; domestic or household science for the high and normal schools; home economics or euthenics for the college and university.

Courses under these and other names are being wedged into the curriculum in an increasing number of schools in every state in the Union, for the most part as sporadic and uncorrelated efforts often by irresponsible persons, I mean not responsible to the same extent as the teacher of subjects regularly recognized in the curriculum. The result may be excellent, or it may be demoralizing. In any case, it is not as yet recognized as legitimate and a necessary part of an American education.

The advocates of the kind of training comprised under the general head of home economics feel that this great body of educators must take a controlling interest in the subject-matter and in the various forms under which this may best be utilized as educative, and therefore they have petitioned you (see last year's report) to appoint a committee of five or seven to study the matter and report a workable outline.

Miss Thomas acknowledges the trend of the times when she says most western universities and many eastern ones are boring through their academic college course at a hundred places with professional courses. It is true the road through the curriculum is being built, the tunnel is bored, the temporary tracks are laid, construction trains carrying passengers at their own risk are now running . . . . soon it will be too late to change the road-bed without violence, but now is a time when wise counsel will tell. Suppression will not be tolerated. There is a deeply rooted conviction that the times are out of joint, that the bounty of this productive country is being wasted, not only its fuel and forests but its men and women and especially its children.

The economics of consumption, including as it does the ethics of spending, must have a place in our higher education, preceded by manual dexterity and scientific information, which will lead to true economy in the use of time, energy, and money in the home life of the land. Just what that place is to be, how its various phases are to be presented is for your committee to decide. I venture to present, as aids or as foundation; first, a statement of suggestions given to the Society for Scientific Study of Education in 1904; second, an outline prepared by the holder of a scholarship of the Woman's Education Association, of Boston, as a result of her year of study of the question, carried on in schools east of the Mississippi; third, a report on survey courses This report shows that a large proportion of educators (men, of course, I mean) really believe in something of the sort now being taught under domestic science, household arts, or home economics, but they are not yet pushed hard enough from their customary ways to take the matter up—most heads of schools are well content to let private parties do the experimenting. Today the ideas are so far developed that there is something tangible to combat; there is fire enough to be reckoned with and it behooves the leaders to take a hand in shaping the future course of a group of subjects bound to outgrow control unless trimmed into harmony.

Several questions are even now clearly defined. What hand training shall take the place of the home industries now gone into factories? What teaching in economics is legitimate in view of the fact that buying and not making is the province of women? How much science is essential to enable a buyer and a household to live safely in a time of uncleanly manufacturing and handling? How shall sanitation in all directions be firmly impressed on the habits of all citizens? Safe food and clean food, how shall it be assured? How shall that degree of good taste and those desirable standards of living be ingrained in the people for their best development? How shall morality in daily life reach to the details of living? The municipality is made up of individuals and cannot rise above the level of the average.

The sanitary research worker in laboratory and field has gone nearly to the limit of his value. He will soon be smothered in his own work if no one takes advantage of it. The law has made as many regulations as it is wise to have unenforced on the statute books. The board of health inspector leaves his orders on all the households he considers may be scared by his badge. Societies, with long names and many officials, meet and tell each other of the great things they might accomplish.

Meanwhile children die by the thousands; contagious disease takes toll of hundreds, back alleys remain foul and the streets are unswept; school houses are unwashed, and danger lurks in drinking cups and about the towels. Dust is stirred up each morning with the feather duster, by the inefficient worker, to greet the warm moist noses and throats of the children.

To the watchful expert it seems like the old cities dancing and making merry on the eve of a volcanic outbreak. There is ready to hand the field to till by the home economics teacher. Is she ready for it? A few years ago the whole atmosphere was so unsympathetic to science that only a pretty thoro course was weighty enough to convince the student. He could not grasp it and he could not be trusted to represent it.

Today, though it is not very profound and is not always sound, science pervades the air to such an extent that the resistance is much less. Science, too, is much surer of its ground so that it is possible to give the public a talk and have a great deal of it understood by the audience. It is possible for the home-economics teacher to give much hygienic instruction under the topics now down, and in the course of her teaching to change the attitude of the whole section. Here is our opportunity to teach the art of right living. Never mind the name by which it is designated; it is the result which we are offering. It is not temperance nor mere hygiene, but the whole round of abundant physical life.

Give the child a chance. Use knowledge, so far as we have it. The home-economics teacher has a better chance to interest her pupils than any one else, if she will fit herself to do it. It is not cooking alone, nor sewing alone, but psychology, pedagogy, and ethics that come into this home teaching.

Who can doubt that by whatever means it came to be, the domestic science course offers the best means to influence the lives of the people and influence them quickly? Coming as it does, or should, in the grammar schools, it may touch every scholar and in five years re-make health ideals in every home in the land. In that time it can change the environment in the worst and enable the others to mitigate the evils in their homes. At the end of that time the whole country will have sufficiently aroused to carry it on. For five years turn all investigation of all the research laboratories toward better living conditions.

I hear you say, "Where are the teachers?" Did we fold our hands in Panama or in Cuba and say, "Where are the experts?" Our schools are turning out hundreds of young men who have been trained to hunt bad conditions; put a few of them at work alongside the young women from our state universities and let them both take counsel with the few faithful teachers who have been years ahead of the times, making a halo of light in a few dark places.

In England, in 1884, I saw a young man from the university in the board schools giving instruction as to the baby's milk. In America we have allowed the newspapers and magazines to do the public instruction which belongs to the universities.

For a practical people we have been most impractical in our methods of reaching the people.

Industrial education, unless carefully considered, may make matters worse, for it takes more and more the interest from home life, which I must reiterate has been robbed by taking away the creative side. You cannot make women contented with cooking and cleaning and you need not try. The care of the children fully occupies only five or ten years of the seventy. What is she to do with the rest?

The movement for industrial education is doomed to fail of its great purpose unless you take account of the girls. You cannot put them where their great grandmothers were and yet take to yourselves the spinning and weaving and soap making. There was always something to *do*, now there is only something *to be done.*

We ask for this committee with appropriation because in our sporadic efforts to ascertain what is being done we found it required personal correspondence and a following up of trails like a study of family history. No one of those interested could undertake the task—much less were we qualified to make the necessary computations and desired deductions as guide to further development.

We hope to convince you, if you are not already aware of the extent to which those subjects have already crept, often unauthorized, into the curriculum of the public schools of all grades, and no one knows better than this body of men how inspiring an unauthorized subject may be or how far from correct pedagogical lines—all depending upon the individuals presenting it.

Memorial Addresses

Dr. F. Louis Soldan

BEN BLEWETT, SUPERINTENDENT OF INSTRUCTION, PUBLIC SCHOOLS, ST. LOUIS, MO.

F. Louis Soldan was born in Frankfort-on-the-Main in 1842, was trained in the schools of his native land, and came to America in 1863, without fortune and without friends in the new world. After a brief stay in New York, he went to St. Louis and established a private school which he conducted till 1868, when he became an instructor in modern languages in the St. Louis High School. In 1870, he was appointed assistant superintendent in charge of the instruction in German, and in 1871 was made principal of the normal school. This position he held till the high and normal schools were united under his principalship in 1887, where he continued until 1895. At the close of that year he was elected superintendent of instruction in the St. Louis schools and held this position till his sudden death on March 27, 1908.

In 1880, he organized the first normal institute for teachers held in South Carolina and for his distinguished services in this work he received from the revived university of that state the degree of LL.D. In 1877, he became an active member of the National Educational Association, and in 1885 was elected its president. He served on the Board of Trustees from 1897 to 1905. He was without interruption a member of the National Council from 1880 to the time of his death—a period of twenty-eight years. In 1881, he was made its first secretary, and in 1890, its president.

Such is the index record of the successive steps of a great life in the history of education in this country and its limits in time. Who can adequately set forth the significance of this life in the great push of its influence during the long years of its continuance; or presume to comprehend by his imagination the expanding sweep of this influence as perpetuated in the lives and institutions it has stimulated and shaped?

The morning of March 27 was a beautiful morning in St. Louis, a morning when hope was buoyant, when life was in the spring. At one o'clock in the afternoon the assistant superintendents had assembled for the usual weekly conference with Superintendent Soldan. A message came from him that he was not well and must visit his physician, but expected to be at the meeting later. In a few minutes a telephone message from one of the papers told that Superintendent Soldan had fallen dead on the street. Our hearts stood still; we were dumb; our superintendent, our leader, our friend, was dead. Within two hours the Board of Education had met and appointed a committee that drafted this among other resolutions:

> *Resolved*, That in the loss of its superintendent, F. Louis Soldan, the Board of Education feels itself deprived of its ablest officer, of a friend to whom every one of its members was warmly attached and who was a guide and inspiration to the whole corps of our teachers.

On the following day the supervisors, principals, and teachers assembled, and in the profoundest sorrow deplored the irreparable loss to themselves, the city, and the nation. Through the morning of Monday, March 30, the body lay in state in the corridor of the Central High School and thousands of pupils and their parents passed in solemn procession to pay their loving tribute.

In the afternoon, the funeral services were held in the auditorium where citizens of all walks of life, with municipal and state officials, crowded every inch of space within, while hundreds, unable to gain admission, stood outside in a pouring rain. The eulogiums pronounced on this occasion are published in a memorial volume where they may be read at length. Yet I think it proper to repeat here selections from them that the records of the National Council of Education may treasure these estimates of the worth of him we mourn.

I quote from Dr. Magoon, president of the board:

> The Board of Education of the City of St. Louis desires to put on record its expression of deep sorrow at the loss of this remarkable man, and its feeling of indebtedness to him for the great services which he has rendered as Superintendent of our Public Schools. Our high appreciation of the great share which he had in the upbuilding and uplifting of our educational system and our deep regret that not only this community but the cause of education should have been so suddenly deprived of the great and beneficent work which this able, scholarly, and enthusiastic educator might still have accomplished, can be but feebly expressed.
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> Dr. Soldan was the type of a true scholar whose aim and ideals embraced the perfection of humanity through educational methods.

Professor Woodward, a member of the board, said:

> The Board of Education, for whom it is my privilege to speak today, feels and will feel profoundly its loss, now that those lips are closed and that large heart beats no more. For twelve years, the board as now constituted has enjoyed and profited by his tireless energy and his splendid abilities. But the splendor of his service makes our misfortune only the harder to bear. It is needless for me to say we loved him, for all who knew him loved him, from the children and teachers in the grades to the cabinet of assistants whom he had gathered around him. To know him was to love, honor and trust him.
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> I remember that the great Swiss-American biologist, Louis Agassiz, asked that his epitaph should be the single word "Teacher." If I were to write an epitaph today I would ask that these words be engraved on the tomb which is to hold this casket: "Frank Louis Soldan, Teacher, Friend, and Guide of Teachers."

Mr. E. C. Eliot, formerly member of the board, and as chairman of the Committee on Instruction, given the most favorable opportunity of estimating Superintendent Soldan's worth, paid this tribute:

> This man thruout a long life of educational service poured his soul and intelligence into the hearts and minds of the people and leavened them all to higher and better life. For not alone those who received instruction from him, but the many more who received help from those he instructed, the hundreds of the good and faithful who have spent their lives in the inspiration of his words—yes—and the thousands, who, without knowing when or how, have breathed the spirit of his life: these are his beneficiaries and

he is their benefactor. How poor and meager seems the opportunity of him, who, out of the selfishness of his life, can give only money to the uses of a community, compared with the one who has given himself!

We bore the body away and as we closed the portals of the tomb, above our sobs arose this song, sung by his companions of the Liederkranz Society:

Stumm schläft der Sänger, dessen Ohr
Gelauschet hat an andrer Welten Thor.
Ein naher Waldstrom, brauste sein Gesang,
Und sauselt auch wie ferner Quellen Klang.
Du schlummerst stille, schlummerst leicht,
Weil über dir der Sturm and Zephyr streicht,
Der Sturm der dir den Schlachtgesang durchdröhnt,
Der Hauch der sanft im Lied der Liebe tönt.

The morrow placed us face to face with the work to be carried on and our leader was gone. Then came the most marvelous demonstration of what he had been to us all. Staggered by the awful blow, the Board of Education and corps of teachers had been dazed for the moment and apparently helpless. Yet with the need for action came the calm of returned courage thru the conscious and certain reliance upon the efficiency of those plans of organization and principles of co-operative responsibility on which he had constructed and by which he had animated the life of the schools. No longer in our midst, he was now more than ever present in each of us and seemed to dominate us the more completely thru his disembodied spirit. And making what he would wish us to do, our criterion, all, members of the board, officers, and teachers, stood to their work with confidence in each other, without a waver. Saul was dead but Saul still lived.

Crush that life and behold its wine running. Each deed thou hast done
Dies, revives, goes to work in the world; until e'en as the sun
Looking down on the earth, though clouds spoil him, though tempests efface,
Can find nothing his own deeds produced not, must everywhere trace
The results of his past summer prime—so, each ray of thy will,
Every flash of thy passion and prowess, long over shall thrill
Thy whole people, the countless, with ardor, till they too give forth
A cheer to their sons; who in turn, fill the south and the north
With the radiance thy deed was the germ of.

Probably no superintendent of schools ever commanded more completely the respect and confidence of his colaborers and of the community in which he worked. The fundamental causes of this condition were: (1) the evident singleness of his purpose; (2) the thoroness of his preparation for his task; (3) his enormous and untiring capacity for detailed work, and (4) his very human sympathy.

He desired with all his heart to make the schools the best possible instrumentality for the development of the powers of the child that it might accomplish its own happiness in the highest degree, and contribute most efficiently to the world in which it lived and was to live as a man.

He bent all his ability to the accomplishment of this aim, and no suggestion of personal gain could turn him from it. As was natural with one of his acknowledged insight and practical experience, he was constantly urged to reach a larger audience through the lecture platform or through the literary and educational press, but he never yielded to the temptation that might dissipate his strength or that might place him in a position where his judgment would be biased on questions affecting the immediate interests of the schools. Problems of administration that have proven impossible of reasonable solution by weaker men were seemingly easy to him, because his only policy was direct action where right could be determined and the test for right in any line of conduct was its adaption to the general interests of the schools. His decision of questions was always so clearly based upon this principle that those who were disappointed when their pleas could not be granted, with rare exceptions, recognized the justice of his decisions and were won by the impartial and sympathetic ear he gave to the presentation of their case.

In one of the sacred moments of intimate friendship, he disclosed to me that his highest hope was to be remembered as one who had devoted his life to the children. This lofty purpose was his pole star, and we, his fellows, have seen how steadily the helm was held toward it, and today recall a verse of one of his favorite poems—"Columbus," by Joaquin Miller:

They sailed. They sailed. Then spoke the mate;
    "This mad sea shows its teeth tonight.
He curls his lip, he lies in wait,
    With lifted teeth, as if to bite!
Brave Admiral, say but one good word:
    What shall we do when hope is gone?"
The words leapt as a leaping sword:
    "Sail on! sail on! sail on! and on!"

His preparation for his work began in the dawning of his life, where those silent influences of inheritance were molding the physical instrument which should express the spirit that with developing strength smote upon its chords. He was born with the disposition to do what was to be done and the conditions of his home and the traditions of his country laid upon him the training that familiarized him with the history and literature through which the classic civilizations had expressed themselves, and with the methods of scientific investigation and the attitude of philosophic insight.

The influence of this training showed itself both in the thoroness that characterized every portion of his subsequent work, and in the poetic enthusiasm that idealized the whole path of duty and glorified it with light of eternal truth and beauty. The scope of his interests may be crudely shown by the turning lathe in his workshop, his unexcelled private photographic apparatus, his minutely annotated library of philosophy, and the little pocket volume of Horace which was his *vade mecum.*

With the natural tendencies of character thus developed he came to the

United States at a time when the ferment of hostile political beliefs was threatening the very existence of the nation. and located in St. Louis where those of his own nationality were to play so large a part in determining the future of American institutions. The young German soon found his new home a better field than his old for the development and expression of that individual freedom of thought and life which is a natural impulse of the Anglo-Saxon spirit, and of that consequent respect for the opinion of one's fellow-man.

In such a congenial atmosphere, men of high purpose were attracted to each other and drew together in groups for the discussion of questions of large human interests, and to such association F. Louis Soldan, a young man not yet thirty years old, was drawn. Already a scholar, with other master-minds he became a close student of sociological movements as determined by man's spiritual nature, and with the insight that came from such study, he added wisdom to his scholarship. The effect of this intellectual companionship was shown during the years he was principal of the normal and high schools, in his sound judgment, his knowledge of human nature, and the motives that controlled it, and his ready tact in meeting new situations.

When, at the age of fifty-three, he was called to the office of superintendent, every necessary element for success had entered into his training for the work. Scholarship, intellectual companionship, struggle with material things, keen observation of stupendous social movements, and practical experience with every phase of elementary and secondary education—all these things were in his preparation.

When he entered upon this crowning epoch of his work, the organization of the schools in St. Louis differed little in principle from the organization of a country district. The board was elected partly by wards and partly by the city at large. All the business, including that requiring expert knowledge, was undertaken by committees of the board and responsibility could not be traced directly to any individual member or officer. This type of organization performs without marked disaster the work of a small district, but it is hopelessly inadequate for the administration of the complex system of schools in a large city. This statement may seem an unnecessary repetition of a truism to the men and women before me. Yet its truth was not recognized in St. Louis thirteen years ago, and there is some good ground for the belief that it is not universally accepted in practice throughout the United States today. In spite of the presence in the board of many intelligent, virtuous, and patriotic men, abuses that hindered the development of the schools and threatened to destroy completely their usefulness grew out of the crudeness of the institution that had not developed the proper organs for the increasing and specialized work.

Our experienced and philosophic superintendent soon saw that the only satisfactory way to be rid of the evils that beset his work was to attack directly their cause. Within a year, modestly keeping himself in the background, he had summoned to his aid the awakened conscience and intelligence of his city and thru them had secured the passing of a law that gave to the Board of Education a charter that has become distinguished as a pioneer movement in the betterment of city-school organization. Its fundamental principles are sharp definition and location of responsibility and bestowal of authority to meet it.

Authority rightly used he knew would bring success; authority abused, misused, or left idle would bring reproach upon the law and all for which it stood. Opportunity had been won, opportunity must be used, and, in the largeness of his plans, this meant untiring zeal, a great comprehension of problems, and a policy that would merge tact and firmness into actions that should clearly have regard for the feelings and interests of the individual while protecting the schools.

Some feared the misuse of the power that gave to the superintendent complete initiative in the selection of textbooks and supplies, the shaping of the course of study, and the nomination of teachers. He was called dictator and czar. But so great was his discretion in the exercise of his authority that all interests, except those of the most viciously selfish kind, soon found the assurance and comfort that result from reliance upon the decisions of one who is a competent and just judge in affairs where his training has made him an expert.

The energies of the board which, under the incompetence of the old law, had been dissipated in the worries of detail, in the handling of which it was not experienced, and had been distracted by the multitude of warring interests which it did not know how to reconcile or defeat, were now concentrated upon the consideration of the large question of policy in the administration of the schools.

Formerly money could not be found even for housing of the schools, and thousands of children were at school only on half-day time. Poor textbooks were in use, school appliances or apparatus were meagerly supplied, and supplementary books for reading as literature or information subjects were regarded as the wild dreams of the enthusiast. As if by magic, under the new conditions, it became possible to obtain all that was needed for the maintenance and development of the work. What seemed magic, however, was most intensely matter-of-fact. The recommendations of the superintendent carried because the committees of the board were convinced that his conclusions had been reached after the most unremitting scrutiny of all that bore upon the subject under consideration, and that they were made with their value to the schools as the supreme test of their merit.

His singleness of purpose, his many-sided training, and his tireless attention would alone have made Doctor Soldan a great superintendent; but added to these qualities, dominating them, or better still coloring and vitalizing them, was his superabundant sympathy with man and child. Many of you were present at the recent meeting of the Department of Superintendence in Washington where Doctor Soldan replied to the addresses of welcome. The chairman in introducing him expressed his pleasure that a man who for over a third of a century had been most active in the work of the association was still alive and could be called upon to respond. You will remember how, with glowing face and the vigor of youth, he rushed to the platform and gave vent to expressions of joy that he was still alive, alive in these times of stirring thought when men were aglow with the fervor of their desire to meet and solve the questions that bore upon the improvement of human life. You will remember how his enthusiasm kindled us all with its magnetic radiation.

Take up any journal you please in which the profession, after his death, recorded its estimate of him. Underlying all that is said in praise of his scholarship, his skill as an instructor, his executive force, his influence as a debater, there runs the note which sings of his friendship. Other men used other words, but the sentiment was the same as that so delicately expressed by Aaron Gove:

> His coming brought to me an atmosphere saturated with such cordial friendship, gladsome welcoming, and unbounded confidence as did that of no other man. His framed likeness has been the only one in my room for three years; as it hangs above my desk his genial recognition is apparent as I look up.

Each of us knows what loss he has suffered in this death, each of us knows what precious heritage in this memory is his. How shall I now reckon the indebtedness of this association of teachers to one who, with no regard for personal comfort but with the enthusiasm of personal interest, devoted his talents and time without stint to its work, as member, committee-man, trustee, and officer? The history of his service is set down in the records of this institution, it is impressed upon men's hearts, it will live in the expanding influence of lofty example.

Rufus Henry Halsey

JOHN A. H. KEITH, PRESIDENT, STATE NORMAL SCHOOL, OSHKOSH, WIS.

A little less than a year ago, in the northern Wisconsin woods, whither he had gone for needed rest and recreation, the fruitful life of Rufus Henry Halsey was ended by the accidental discharge of a revolver in the hands of one of his sons.

Born at Blooming Grove, N. Y., in 1856, he removed in 1858 with his parents to Brooklyn. In the public schools of Brooklyn, and Adelphi Academy of the same city he received his early education and preparation for college. He was graduated from Williams College with the class of 1877. The six following years were spent in teaching in New York state, one year at Newtonville, and five years in Adelphi Academy. From 1883 to 1896 Mr. Halsey was principal of the Oshkosh High School and for the last five years of that time, city superintendent as well, being the first professional superintendent that Oshkosh had employed. In 1896 Mr. Halsey was called to the superintendency of the Binghampton, N. Y., city schools. Upon the death of Mr. Albee, who had been president of the Oshkosh Normal School from its foundation in 1871, the faculty of the normal school and the leading citizens of Oshkosh felt that Mr. Halsey was most capable of managing the great school which the genius and life of President Albee had built up. The Board of Normal School Regents concurred in this feeling and Mr. Halsey became president of the Oshkosh State Normal School, January, 1899, in which office he served until his death.

What manner of man he was and in what estimate he was held by the leaders in educational thought and activity is best shown by the fact that he was twice elected to membership in this distinguished body and was a frequent contributor to its programs. In whatever relation to life he found himself, Mr. Halsey conceived his fundamental duty to be service. In this fact is found the source of his wide-ranged interests, his devotion to all that he attempted, his power of co-ordinating details effectively, and his power over people.

Mr. Halsey has been characterized by one of his college-mates as "an incurable boy." He never lost the enthusiasm and buoyancy of youth, nor his early love for games and sports, as is shown by the fact that in the hour preceding his tragic death, he had engaged in target practice with his sons. These interests kept him youthful and gave him power over youth.

Along with this buoyancy and power, however, was an abiding devotion to his work, and he conceived his work to be the organization of upward-tending, life-giving experience for the youth with whom he dealt. A distinguished superintendent recently said to me, "Mr. Halsey had intuitively that rare educational insight which only few men can acquire after long study."

Such a man is public-spirited without reflectively framing a code of public ethics. In the literary, social, business, and civic life of Oshkosh he was an active factor, and it is indeed a suitable tribute to his work that the alumni of the schools and the citizens of Oshkosh have raised a fund to provide Halsey Memorial Lectures so that the knowledge, good-sense, and ideals which he stood for in community life may be brought in perpetuity to the community and the school.

While a man may be drawn unreflectively into matters of public concern, he must become conscious of ends and ways and means when he assumes leadership. That Mr. Halsey added practical insight to his natural social sympathy is clearly proved by the organization of faculty and students which I found existing at Oshkosh. The faculty committees which he organized are working committees, and the student organizations, without exception, are related to each other through their relations to the welfare of the school. This ability to see the practical outcome from the beginning was one of Mr. Halsey's most serviceable traits.

In addition to all this, Mr. Halsey had a rare power of detecting fundamentals. I do not mean that he had a formulated set of fundamentals to which he logically adhered. Instead, his sure-footed mind took in all the relations of a tangled problem and, with difficulty, but also with clarity, he brought order out of seeming chaos. He not only saw—he did; and what he wrought needed never to be untangled.

A man with such qualities and exempt from such negations as they imply is, in simple truth, "the salt of the earth;" and the earth which he served loved him devotedly. I cannot more fittingly close this tribute to the memory of Mr. Halsey than to quote the last paragraph of his baccalaureate address of 1903:

"Enter upon your work with a spirit and determination that shall enable men to say of you when you have put the harness off: He was

> One who never turned his back but marched breastforward,
> Never doubted clouds would break,
> Never dreamed, though right were worsted, wrong would triumph;
> Held we fall to rise, are baffled to fight better,
> Sleep to wake!"

DEPARTMENT OF KINDERGARTEN EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—MISS BERTHA PAYNE, kindergarten director, School of Education, Chicago, Ill.
Vice-President—MISS BARBARA GREENWOOD, supervisor of kindergartens, Pomona, Cal.
Secretary—MISS HARRIET ROCKWELL, director of kindergartens, Cleveland, Ohio

FIRST SESSION.—TUESDAY MORNING, JUNE 30, 1908

The Kindergarten Department of the National Education association met in the First Methodist Church. Bertha Payne, School of Education, the University of Chicago, president of the department, presided.

The session was opened with songs by a chorus of students from the Cleveland Kindergarten Training School, under the leadership of Miss Anna Goedhardt.

Patty S. Hill, president of the International Kindergarten Union, gave greetings from that society, expressing the hope that the two associations might become more closely allied.

Earl Barnes, lecturer for the American Society for the Extension of University Teaching, Philadelphia, Pa., gave an address on "Fundamental Factors in the Making of a Kindergarten Curriculum."

Alice Temple, of the Kindergarten Institute of Chicago, read the next paper, her subject being "The Factor of Environment."

A paper on "The Relation between the Ideal and the Practical" was presented by Luella A. Palmer, kindergarten critic teacher, Speyer School, New York.

These papers were discussed by Mrs. Alice H. Putnam, Chicago, Ill., Patty S. Hill, New York City, Mina B. Colburn, Cincinnati, Ohio.

Committees were appointed by the president as follows:

COMMITTEE ON NOMINATIONS

Netta Faris, Cleveland, Ohio
Alma L. Binzell, Menomonie, Wis.
Winifred Smith, Detroit, Mich.

COMMITTEE ON RESOLUTIONS

Elizabeth Harrison, Chicago, Ill.
Ella C. Elder, Buffalo, N. Y
Anna Littell, Dayton, Ohio

SECOND SESSION.—WEDNESDAY MORNING, JULY 1

A joint session of the departments of Kindergarten, Elementary, and Art Education was held in the First Methodist Church, Bertha Payne, president of the Kindergarten Department, presiding.

The nominating committee of the Kindergarten Department recommended the following for officers:

For *President*, Mabel A. McKinney, Cleveland, Ohio.
For *Vice-President*, Luella A. Palmer, New York, N. Y.
For *Secretary*, Caroline Sewell, Denver, Colo.

The report was on motion accepted and the secretary was directed to cast the ballot for the election of the nominees. The ballot was so cast and the nominees were declared elected for the ensuing year.

The topic for the session was "Art in the Kindergarten and Primary Grades."

"The Art Impulse; Its Early Forms and Relation to Mental Development" was the subject of a paper given by Lillian S. Cushman, instructor in art, School of Education, the University of Chicago.

Mrs. Alice H. Putnam, superintendent of the Chicago Froebel Association, read a paper on "Drawing in the Kindergarten."

This was followed by a paper on "The Use and Abuse of Design" by Mae B. Higgons, kindergartner, Public Schools, New York City.

A paper treating of the "Motive and Methods in Primary Art Work" was read by Beatrice Weller, institute instructor and supervisor, New York City, and afterward illustrated by her.

A general discussion followed, participated in by Elizabeth Harrison, Chicago, Ill., William N. Hailmann, LaPorte, Ind., and George W. Eggers, Chicago, Ill.

ROUND-TABLE SESSION.—Thursday Morning, July 2

A meeting with the National Society for the Scientific Study of Education was held in the First Methodist Church, for the discussion of the topic: "The Co-ordination of the Kindergarten and the Elementary School," as presented in Part II of the *Seventh Yearbook* of that society. Charles McKenny, Milwaukee, Wis., president of the National Society for the Scientific study of Education, presided.

President McKenny gave an outline of the presentation in the *Yearbook.*

Patty S. Hill, of New York City, gave a résumé of her article in the *Sixth Yearbook* on "Some Conservative and Progressive Phases of Kindergarten Education."

The following took part in the discussion: Mrs. Alice H. Putnam, Elizabeth Harrison, and Bertha Payne, Chicago, Ill.; Lida B. Earhart, New York, N. Y.; Emma C. Davis, Cleveland, Ohio; Luella A. Palmer, New York, N. Y.; Mina B. Colburn, Cincinnati, Ohio; H. E. Kratz, Calumet, Mich.; Robert I. Hamilton, Vincennes, Ind.; Alma L. Binzel, Menomonie, Wis.

The president of the Kindergarten Department, Miss Bertha Payne, then took the chair. The Committee on Resolutions presented its report thanking the Day-nursery and Free Kindergarten Association, and the Kindergarten Union of Cleveland and those individuals who had contributed to the entertainment and comfort of the visiting kindergartners. The report was accepted and adopted.

After the introduction of the president-elect, Mabel McKinney, Cleveland, Ohio, the department adjourned.

Harriet D. Rockwell, *Secretary*

PAPERS AND DISCUSSIONS

FUNDAMENTAL FACTORS IN THE MAKING OF A KINDERGARTEN CURRICULUM

EARL BARNES, EDUCATIONAL LECTURER, PHILADELPHIA, PA.

In the past most curricula have been made to fit a theology or a philosophy. Today it is almost universally recognized that a curriculum should be made to fit the children who are to be affected by it. It is the crowning glory of the kindergarten that it has generally started its theories and its practice directly with the child and has studied to understand his nature and to meet his needs. Its successes have been based on the wisdom of its founder and on the splendid devotion of the master's followers; its mistakes have been the errors common to human nature.

During the last twenty years we have had a great deal of really scientific study devoted to the little children. On the whole, the results of this study agree with the teachings of Frederick Froebel; they re-state the earlier discoveries of great educational leaders, with here and there a modification or an addition. This paper seeks to state the fundamental factors in the making of a kindergarten curriculum from the point of view of modern genetic investigations.

If a scientist were set to study a child under six years old the first thing to strike his attention would certainly be the marvelous activity of the specimen. He wriggles, squirms, gurgles, laughs, claps, creeps, walks, trots, and tumbles about. He talks, cries, shouts, and rubs himself into every object he can reach, so that a student like Professor Dresslar is able to write a long article in merely enumerating the acts of a three-year-old for a half-hour.

But the scientist will hunt in vain for any steady axis of organization running through the chaos of doing. This is why all records of infancy, like those of Miss Shinn or of Mrs. Moore, or even the volumes of Preyor, are such uninteresting and almost impossible reading for anyone except students of childhood. A well-organized mind moves easily along the lines of its normal action; compelled to turn hither and yon in an attempt to follow the accidental movements of a child's mind it is quickly tired out. This is also the reason why any real work with little children is so fatiguing; and it explains the constant struggle between kindergartners and boards of education over the questions of double sessions in kindergarten work. It is true that there is little difference between children in the last days of the kindergarten and the first days of the primary grades; but there is a vast difference between kindergarten children and primary children as a whole, and this difference is mainly due to the quality of fragmentariness in the activity and in the attention of the little ones.

The third quality that must strike the scientific observer of little children is their remarkable desire for and facility in social intercourse. Even in extreme infancy the baby longs to have someone near him. In his first days he prefers to lie in a lap rather than in a cushioned crib. Only with protestations and cries will he break his social bonds and voyage off into the lonely land of sleep. In the first year he greets animals and babies as his peers; after the first year any child who seeks solitude is something of a monster. This intelligent interpretation of and response to the social forces about him early mark the child as the master of all living things. He learns quickly whom he can control and how to do it; whom he must obey, and why. At three years old, he reads a face as adults read books; and at six he has passed thru, and at least partially assimilated, most of the social experiences of life.

This social sensibility makes little children strangely imitative. Whatever any of us thinks that he tends to do; what we think with admiration tends doubly to pass over into action and hence into conduct. We live by our admirations; and what we love that we become. Later in life, fixed habits and accepted ideas and ideals will inhibit this imitative tendency, but little children are the prey of all suggestions that play upon them.

And because a little child is weak and unformed, and his ideas run always before his powers, he seeks to realize himself in imitative play. As I write these pages, three children are playing with a cart on the lawn. They have just made a little journey by sea and so the cart is a ship; the child in front is the captain; the one who pushes behind says he is the sailor; the smallest one, who because he is the smallest has been crowded into the back of the cart, cries lustily because he wants to be a sailor. "No," explain the others, "you are the passenger; here is your ticket." Already, as I write these words, they have deserted the ship and have gone to play in the garden. Here you have an epitome of young childhood with its activity, its fragmentariness, its social demands, its openness to imitation, and its attempt to realize life and prepare for it thru imaginative play.

This, then, is the material we have to work upon—an undeveloped human being, active, chaotic, social and hence imitative, ineffective and so driven to imagine, invent, and play at all sorts of actuality. The curriculum must be made to fit this individual and it must also anticipate and lead toward the life that we wish the child to grow into. That life is very different for different groups of children. It depends largely upon the philosophy, theology, and social and political theories of those who are in charge of the children. A kindergarten in a convent must care most to secure success in the life that follows this one; a select kindergarten in an aristocratic neighborhood will care especially to fit the children for the walk of life to which they have been called by the parents' wealth; a slum kindergarten must always be used as an instrument for improving the slums. In this paper, we shall take it for granted that the kindergarten is secular, democratic, and American.

To train a creature with the qualities we have described it is clear we must depend on its activity for our motive power. It is a sad thing when a school for children neglects to train them; it is a sadder thing when it destroys the driving desire to do things. To maintain the hunger for activity we must have a curriculum providing for pretty constant physical work or play. This can be secured in organized indoor games, in industrial exercises, in gardening, in playground exercises, or in excursions. The children's corners in the recreation centers of Chicago are admirably devised to encourage activity. Wide sand piles, ample wading-pools, swings, and teeters provide a succession of activities that can be combined in endless variety.

But this activity is merely opportunity for training. Play will keep activity alert, but work must organize this fragmentary activity into significant sequences. A recreation center may be merely a place for discharging unused energy; but a kindergarten must shape life, if it is to justify its existence. Here we meet the universal paradox of education. We must keep initiative unchecked and activity alert, and still shape desire and direct activity to ends that will be of deepest value in life. It is the old struggle of wind and rudder for the control of the ship; without wind, nothing is done; without rudder no port is gained.

The directive work in the kindergarten, so far as guiding activity is concerned, must lie mainly in the direction of organizing the tyrannical but necessary reflexes that we call habits. Infant education should be mainly concerned with stocking and directing the subconscious nerve centers. The child should learn to walk well, to carry his head erect and his chest well forward, to step lightly, to run and dance, to shake hands, bow, pass articles or move a chair aside. He should learn to articulate clearly, speaking distinctly and agreeably, the pitch of his voice should be properly regulated, and harshness worked out of his tone; he should learn to sing and recite little poems agreeably. Laughing, grimaces, tricks of mouth and eyes, all these should be constantly shaped towards excellence. Wearing the clothes well, eating and drinking properly should be reduced to habits, and then forgotten. Of course, if the teacher is stupid she will make the children into self-conscious prigs, into little automata. That is why the teacher of little children should be wisely and carefully trained, well bred and experienced in the usages of good society. The well-to-do have always looked after these matters with great solicitude, and hence they have been able to retain social leadership for themselves and for their children. Some day the children of the people will be trained in this early period, when life-long reflexes are being established, to act like cultivated boys and girls, and the action will strengthen the thoughts and the feelings that make a man truly cultivated. When this time comes, America will have a cultivated and humanized democracy capable of protecting itself against all class aggression and ready to live life with the grace and dignity that human life deserves.

And in the kindergarten all this training of lower nerve centers takes place in a social atmosphere to which children are fully alive and to which they freely respond. Sympathy, emulation, hope, fear, selfishness, altruism, all the passions that gather round social life and intercourse are available for the teacher who knows how to use them. Hence the work and play must be directed to group activities that will give wide and ordered activity to all the feelings of social life. Just as the child is trained to walk erectly so he must be trained to play the game of life fairly and generously. As he is trained to articulate distinctly, so he must be trained to speak honestly. Most of us are good because we have been trained to be good, and we have the habit.

The teacher, standing as the embodiment of authority, can and should command absolute obedience; in the various combinations of the group she will find all the other relations that go to make up our human institutions. The kindergarten is an enlarged and self-conscious home, and a miniature state. So, too, in groups, the industrial games can be carried through all stages of simple production and distribution; while in dramatic combinations, they can figure forth the relations and the crises of life. Probably all sex distinctions had best be, as far as possible, ignored in the kindergarten period. They are far too important in our adult life; they had best wait on older years.

To work out these basal conceptions of industry, society, and life the teacher must depend largely upon imitation. All the surroundings of little children's lives should be simple and capable of childish imitation. The teacher should stand and walk well, she should have a cultivated voice, and should dress with taste and variety. The kindergarten should look more like a living-room than a school; and bad children should be quickly eliminated by making them good. We cannot afford to reform bad children, whether from rich homes or poor, by having them associate with good children four or five years old.

The imagination, as we have said, enables the child to accomplish thru play what his powers cannot compass in reality. Hence industrial games are very effective, but they should always be organized on the basis of some actual observation and experience. That is what imagination can do at this time; it can make observation real, through tactual and muscular experience. Nowhere else does the ordinary kindergarten curriculum lay itself open to graver criticisms than in the imaginative plays. They must be developed directly out of experience, even if they do not recapitulate the experience of the race.

Dramatic activity, based on imagination, should deal also with the affairs of the home and the neighborhood. And here again they must really appeal to the children as connected with life; otherwise they are not exercises for imagination, but mere mimicry. Instead of gripping the feelings, and shaping them, they stultify them. The real life of the homes from which the children come should be represented, but lifted and glorified by the play of imaginative fancy.

On the side of aesthetics we are coming to realize that little children have not the ability to grasp wholes, to feel the charm of proportions and of suggested associations in which all developed art rests. They like brilliant colors and strong sounds and they are especially fond of rhythmic repetition. Dress is the form in which beauty appeals to them most strongly and here it is doubtless blended with egotism in their own case, or, when others are concerned, with admiration for the wearer. The kindergarten can do little more than give plenty of sense experiences properly related out of which the children in later years may build up forms of beauty.

Institutions have all the selfishness of human beings, with few of their generous impulses. They tend to usurp the proper functions of other related institutions and to gather everything into their own hands. The church illustrated this tendency during the Middle Ages. The public school now tends to take over the functions of the home, the neighborhood, and the state itself. But the business of the school should be to supplement the home and related institutions. It is true that the teacher should have a complete philosophy of life in mind to guide her in her work, but in the country village the kindergarten curriculum should give much of what the city home naturally furnishes, while in Boston it should bring the child into contact with what the village child sees daily all about his home. There are then these two reasons why we cannot formulate a universal curriculum for kindergartners. In the first place the kindergarten must take up and use the experience the child has already met; and in the second place it must supplement the home. It might be possible and desirable to work out type curricula for well-to-do country village homes, for industrial centers like Manchester, for congested slum districts, and for fashionable city homes. Where life is so fluid, however, as it is with little children, it must generally be better for the teacher to be well grounded in fundamental principles and then to work out a daily course of exercises, following the seasons, knitting her work on to daily experience and filling out the acreage of interest and need, not cultivated by the home. To do this, she must be well acquainted with the development of little children, she must have a vivid and complete philosophy of life, and she must be trained to think of her institution as one of several, all working to give the children life more abundantly.

THE FACTOR OF ENVIRONMENT

ALICE TEMPLE, INSTRUCTOR, KINDERGARTEN INSTITUTE, CHICAGO, ILL.

The education of the child during the period of infancy proceeds through the free expression of his impulses, but this free play goes on in a social organization of which the child is a part, and to which he must adjust himself. The child is, at first, absolutely dependent upon the grown people about him for the mediation of his impulses. They not only furnish the stimuli which he is unconsciously seeking, and to which his motor processes are all ready to respond, but they help him to complete the reaction. For example, the child's hand wants to grasp, but until someone puts an object into it, the grasping impulse cannot function. Later he reaches for the bright object that catches his eye, but someone must take him to it, or bring it to him, before this impulse is realized. When he is a little older, the activities and occupation of the people in his immediate social environment furnish the stimuli which he needs. He responds in what we call imitative play, and even here he depends more or less upon the members of the family for material, for sympathy, for co-operation in carrying out the play activity. It is thru this free expression of impulses, free in the sense that they are not controlled by any end beyond their own realization, operating in an organized social environment which furnishes both stimuli and standards, that the child gets control of himself and enters into human life and activity.

By the time the child comes into the kindergarten at the age of three or four, he is well along in the so-called play stage. He is constantly producing in various play forms what he sees going on about him, both in home and neighborhood. We need only watch his spontaneous play activities to get a very fair notion of what his experience has been and in what sort of an environment, social and physical, he has lived. It gives us the key also to the phases in the life about him which make the strongest appeal to the child. This natural tendency on the part of the child to "play at what the society in which he lives is doing" is the bond of relationship between the individual and the social whole. It is the child's mode of reconstructing experience, the process by which his education goes forward. The immediate experience then of the group for which the kindergarten program is made must very largely determine, not only the subject-matter of the program, but the particular methods and materials used. Environment, therefore, which determines experience, becomes a factor of prime importance in the making of the kindergarten curriculum.

Having determined that the subject-matter, if it is to appeal to the child, must be selected from his particular environment, three questions present themselves: (1) What phases from the life immediately surrounding the child shall be selected? (2) Upon what principle shall the arrangement of the subject-matter be determined? (3) How shall it be presented so that the child's reaction to it shall result in his entering into the life about him and gaining control of himself and his powers through such participation?

First, then, what phases from the life immediately surrounding the child shall be selected? It is in the concrete activities and occupations of persons in the family and immediate neighborhood that the child seems to be particularly interested. He is interested in the physical environment as furnishing a setting, or affording the means, for human activity. Now whatever the particular social environment may be, certain phases of its life are of more social or economic importance than others and therefore of more lasting interest to the child; the occupations in the home, for example, that are necessary to the physical well-being of the family, and certain industrial and civic activities that touch these closely. Around this life, therefore, the work and play of the kindergarten should largely center, if it is to be such as will give "richest meaning to the daily life of the children."

But certain of the transient interests of particular groups of children deserve some recognition in the kindergarten. For example, in one of our public kindergartens in Chicago, the fathers of about two-thirds of the children spend their Sunday afternoons at the baseball game, sometimes taking the children with them. The children bring the banners of the "Cubs" and "White Sox" to school. They talk quite a bit of the slang, and so the other day, when one child brought a bat, a game was organized during the outdoor recess period, the children against the teachers. A low stone wall about the yard served as bleachers, and the lusty fans did their duty. This was the favorite outdoor game for several days. It afforded vigorous exercise to both lungs and muscles, and this play imitation of the game certainly brought the children into sympathetic touch with one side of their fathers' lives. One of the fathers, who happened to be visiting the kindergarten, said it was the best game of baseball he had ever seen.

In another kindergarten more than half of the children are negroes. They go to the theater of the neighborhood regularly with their parents. A platform in the kindergarten room suggested the idea of a performance, and these children soon worked out a sort of Buffalo Bill show. One day a week, for a few weeks, was devoted to this sort of play, and the "company" and "audience" carried it on with perfect spontaneity and unconsciousness. The baseball play and the dramatic performance are illustrations of the recognition of the transient interests of particular groups. Neither would have place nor meaning elsewhere.

The arrangement of the subject-matter is the second question to be considered. A little child relates the objects and persons in his environment through the action going on among them. The whole or unity which appeals to him is what Dr. Dewey calls a "dramatic" unity. Bearing this in mind the kindergarten might begin the year with one of the very common household occupations, the preparation of food, perhaps, and then take one phase of the process after another, one object after another, as the whole large process seemed to demand it. The cooking necessitates stove and utensils, and food to be cooked. This leads quite naturally forward to the serving of the family meal, or back to the immediate source of supply, pantry, storeroom, or market as the case may be. The mother goes to market and brings back the supplies in a basket, or they are sent in a cart. The market itself now becomes a vital factor in the whole process. If it happens to be the fall season, certain special cooking may be going on, and so the fruit stalls become especially attractive and significant as containing that which may be enjoyed later in the form of jelly and preserves. As the children reproduce these experiences in play forms they will themselves suggest what should be done tomorrow as growing out of the play of today. They may have certain quite new experiences, as an actual trip to the market to buy fruit, which may then be preserved by the children themselves.

So other household occupations may well be made the starting-point for a series of play activities, all growing naturally out of the particular occupation and related to it, as they are related in the child's actual experience, thru the action going on, the things being done. The seasons of the year will often determine the order in which such subjects are taken up. But it must be apparent that the way in which any one of these occupations, with its various related activities, is reproduced in the kindergarten will necessarily be determined by the particular environment of the group.

This brings us to the third question, that of method. If the subject-matter selected is in direct and real relationship to the child's life and interests, his response will be immediate and spontaneous. The subject-matter itself will furnish motives and suggestions for play reproduction. The teacher's business will be to secure for the child whatever is needed in the way of further sense perception in order that his plays and constructions may be the expressions of his own mental images and ideas. Next she must offer those materials for expression which will help the child to realize most completely his ideas. In his effort to do this, various little problems will arise which he will need to solve before he can reach his end. Here again he will turn to the teacher for help and suggestion, getting the knowledge he needs to carry on his activity. But note that it is his activity, a self-activity called out in the child's effort to reach ends which are his own.

A final illustration will emphasize, perhaps, the points I have been trying to make in favor of the factor of environment as fundamental in the making of the kindergarten curriculum.

I visited a kindergarten this spring and found the children making dolls' hats. The subject for a few weeks had been the preparation of clothing for the spring and summer. As a necessary part of the dolls' outfit the children had suggested hats. They had accordingly visited a milliner's shop the day before. Today the teacher had a very attractive little hat made of manila and tissue paper to serve as a model. The children were given the necessary materials which had been prepared to the extent of a penciled outline of a sailor hat on the manila paper. With the model before them, and directions as they were needed, the children succeeded in turning out some very creditable little hats. They immediately suggested playing store. So the blocks were used to build store windows, standards for the hats were contrived, and the play of buying and selling followed. Finally, hat boxes were made in which the hats were carried home. These various occupations and plays carried over four or five days.

It seems to me we have here the conditions for really educative play. The special subject of the week is a phase of the larger one of social significance and permanent interest. It is adapted to a particular group of children in a great city. The experience which the children have already had is enlarged by the excursion to the shop. They are given opportunity to reconstruct this experience in various ways. The model of the hat supplies the needed image, so that with the partially prepared materials and tools the child can work with relative independence. As he proceeds, he becomes conscious of the need of more knowledge, which he finds the teacher ready to give. The dramatic play of buying and selling is a further mode of interpreting and getting control of the whole experience, which is completed, so far as the kindergarten is concerned, when the little hats are taken home in the boxes. But any such series of plays is sure to be carried further, or at least repeated in the home.

And so there comes to be that relationship between home and kindergarten in which the life of one interprets and reinforces that of the other. Where the kindergarten fails to connect thus vitally with the home, there is a break in the child's development which means waste and loss. The danger of such loss is reduced to a minimum, I believe, when the program is made with careful reference to the social and physical environment of the particular group of children with whom it is to be used.

THE RELATION BETWEEN THE IDEAL AND THE PRACTICAL IN THE KINDERGARTEN PROGRAM

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Every individual is living out, each moment, his own view of the relation between the ideal and the practical, between ultimate purpose and immediate necessity. Unrest comes from the constant changing of relationship necessary to growth. A quiescent state in individuals, in groups, in institutions, would show deterioration, for the elevation of the ideal with the consequent adjustment of the practical is the activity which indicates the expanding of life.

The relation between the ideal and the practical in the kindergarten program is, therefore, not a static condition. Yet if it is a valid relationship, it must be based upon the same principle as that relation in the world at large. In this paper, it will be assumed that the relationship is one of unity, not identity, that both are aspects necessary for reality, the ideal being the power, and the practical the means, by which the potential becomes actual.

Every act which rises above the threshold of an impulsive or of an instinctive action is by its very nature ideal—practical. It implies in varying degrees that there is a purpose, that the immediate action is not left on the plane of the present but is lifted somewhat toward the possibility of the future. Except with the pessimist, it implies the attitude which learns from the past, and which interprets by faith, believing that the future will excel the past by the help of the present.

In attempting to define the position held toward the relationship between the ideal and practical in the kindergarten program, it will be well to seek in the past for that which will aid in leading toward the goal mapped out by farsighted interpreters. To Froebel we will turn as it was not possible to have a kindergarten—to educate consciously a child of five years—until he had brought to consciousness certain educative principles. Froebel is also one of the philosophers who will point out the goal.

Froebel saw all living and consequently all education as a process of interaction. His observations led him to discern that it was carried on from the beginning of the new life to the last days. His educational aim was to bring to consciousness in the individual the idea that strength of personality was dependent upon the degree to which interaction was carried on. It was for the purpose of encouraging a child to develop this principle in his daily living and also to see it in perspective as fully as his few years made possible that the kindergarten was established. This was the step in the revelation of the principle which the five-year-old child was to take.

It was Froebel who saw that interaction occurred in three different directions in the universe. Between an individual and (1) a higher level, God; (2) the same level, man, and (3) a lower level, nature. It is the differing attitudes of human beings which make it possible to appreciate these different levels. There are all gradations of attitudes and so there are feelings of many different levels, but these three are different enough in degree to be designated as distinct types. The attitude toward (1) a higher level is that of worship; toward (2) the same, comradeship; toward (3) a lower, control. The first attitude involves a feeling of an ideal to be copied, an end to be attained; the third, a feeling of material to be impressed, a means to be used to gain some end; the second attitude involves a feeling of the possibility of both copying and impressing, of using as means or as end.

The kindergarten, as Froebel suggested it to us, was to show the principle of interaction working in the form in which it was found in the universe in its three different directions. The teacher was to stand for (1) the higher level—she was to call forth the feelings of love, faith, and obedience. The playmates were to stand for (2) the world of humanity, and the spirit of co-operation was to be cultivated; opportunities were to be given for each one to lead and to be led. (3) Materials were to be used for carrying out and enlarging the child's expressions of his purposes, and in order that this functional use might be accomplished in the best way, the possibilities of the materials were to be considered. These are the three factors in the kindergarten program (teacher, playmates, materials[1]), which are so to be used that a child shall be able to comprehend better the working of interaction in his later life.

The kindergartner is the one to whom a child should look for guidance. She is the sympathetic leader who stands to the child, relatively, as the philosophers do to the adult. It is she who will develop his behavior toward a standard; it is she who will give the cue as to his association with other children; and it is she who will suggest his attitude toward materials. It is the kindergartner who determines what a child shall gain from all these factors. She stands to the child as an embodiment of an ideal and also provides means by which he can strive toward it. The most important connecting link, then, between the ideal and the practical in the kindergarten program is the kindergartner.

The next point is the consideration of the motive which will determine a teacher's influence in the kindergarten. If every individual is living out each moment his own view of the relation between the world's purpose and immediate necessity, he will give back to the world what he feels the world has given him, he will give back the meaning which the world has for him. Professor James says your philosophy "is your individual way of just seeing and feeling the push and pressure of the cosmos."[2] The philosophy of the kindergartner governs the program. It will indicate the goal toward which to strive and also point out the path by which this can be reached. Let us consider the attitude of the kindergartner toward a few of the philosophical problems which will most strongly affect the program.

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[1] The word materials, as here employed, covers everything that a child uses as a means in gaining control of his experiences. Conversation, song, and story are materials for the tongue; rhythm and games for the body; handwork of various kinds for the hands.

[2] William James, *Pragmatism*, p. 4.

The attitude which the kindergartner will try to create toward herself will depend upon her own feeling toward the spirit in the universe. She could hold one of three differing views: (1) that spirit is transcendent only; (2) that it is immanent only, or (3) that it both enfolds and is in matter. If (1) God is transcendent only, the kindergartner will rule her little world with absolute authority, requiring blind obedience, probably controlling with kindness but considering no appeal possible. With this attitude there is a tendency to ignore the child's impulses and instincts, using artificial means to make growth. If (2) spirit is immanent solely, there will be no attempt to set a standard; the decision of the children will be as important as that of the teacher. Her idea will be that a child will force his best growth if allowed to follow his own wish. If (3) the same spirit is in and around all, impulses and instincts will be utilized to make toward the highest ideals known. The children will be helped to work for self-control by exercising their own power of making decisions, but these will be aided by the suggestion and example of the adult. This adult will reserve to herself the final authority where permanent injury, either physical or moral, might result.

Kindergartners may have differing views concerning the relation of the past to the present. This will affect the development of the social spirit among the children. If (1) the values recognized by the best men of today are the only ones of worth, children must be made to conform to those standards. If (2) the ideals of the past are as important as those of the present, children may be allowed to form their own ideals as a group without advice or aid. But if (3) the values found by the race in its gradual development have had their share in forming the models of the present, which represent the highest aspirations of the race, the kindergartner will recognize the place which childish standards should have in the growth of the group, but by example and suggestion she will seek to elevate the ideal to what more nearly approximates the best of today. There will be the gradual evolution of a society growing in a way similar to man's founded upon the desire for activity and the gregarious instinct. First, the children will all do the same thing at the same time. A little later the result of the activity will be put together to form a common product. Then will come the choice of a leader with all the children following. Next will come the planning of a purpose by contributions from many individuals, this purpose will then be carried out by each child in his own way. Finally will come the planning of a common purpose which can be accomplished only by each child perfecting the particular share which falls to his lot. The kindergartner will use these methods with all materials progressing as far as she can with each, as she will realize that between four and six years of age is the period for the most rapid development of social ideals.

The attitude cultivated toward materials will depend largely upon what the kindergartner considers most real in life. (1) The extremists, such as the early Christians, held that reality was spirit only; appearance was to be despised. (2) Others, as the later Greeks, believed that reality was only in what stimulated the senses. (3) The philosophers of the present maintain that reality is the complete union of the spiritual and the material, the latter being the form in which spirit, in order to exist in this world, must embody itself. If (1) spirit is the solely important, that time is wasted which is spent dealing with the concrete; conversations, stories, and songs which treat of virtues and other abstractions will be the only valuable parts of the program. There will be a constant play of moods, but the essence of each will be lost because not embodied in form. If, on the other hand, (2) the material side is solely valuable, materials will be used as ends in themselves, acquisition of facts, perfection of form, and ability to practice technique will be the aim. Each thing, even the kindergarten itself as a whole, will be so complete that it will show a finish very pleasing to the adult. If (3) reality is the unity of the spiritual and the material, the kindergartner will lead a child to feel that there should be a guiding thought which seeks expression through all the materials at his command, thru conversation, story, song, rhythm, game, and handwork. Balance will always be preserved; the creative spirit will be called forth and take form in something adequate to the significance of the moment. A child will gain a feeling of the self as an organic unity; thought and expression in perfect accord will intensify the personality.

The kindergartner's yearly and even daily plans will be influenced by her view concerning the teleology of the universe. She may think that (1) God's design is static and unchangeable, in which case she can have a fixed program which will be of use everywhere. She may believe that (2) there is no preconceived plan; that the purpose is gradually evolving, as the universe develops; then she will use any momentary suggestion of the children as a basis for work. But if (3) God's purpose is a living, growing one which man is helping to embody, the kindergartner will have a definite plan in mind but it will be a principle rather than a design, so flexible that it will allow for variations which would be more valuable for the children at the particular time and place than the detail she had prepared.

In the kindergartner's attitude toward good and evil will be found the key to her discipline. If (1) because the body contains a soul, every human being is naturally good, mature ideals will be held up for copy in the belief that this is all that is necessary to bring a child back to rectitude. If, on the other hand, (2) being in a fleshly body means a natural inclination to sin, the evil must be driven out at all costs even by negative, compulsory methods. There may be another view (3) that goodness is a relative term, according to the standards of society, which are constantly changing. If evil is untrained impulse, the teacher will generally notice an offending action by suggesting a more virtuous way to free the energy.

Lastly, the view which the kindergartner holds of the nature of unity will be at the basis of her attitude toward the principle of interaction and will determine her choice of topics and method of treatment. If (1) she leans to the ideal side, the adult will give much and the child little. Any subject which the adult feels of value will be presented, trusting that the child will gain something from its consideration. If (2) emphasis is placed on the practical side, the respective shares will be reversed. Whatever interests the child will be taken up in the same way that a child uses it—for its momentary significance only. If (3) unity means the combining of two equal though unlike elements, both adult and child must have equivalent parts in carrying out the principle of interaction. It will fall to the child's lot to select the points of interest for discussion (these for a five-year-old child will be in his immediate surroundings), and to the adult to find wherein they can be stamped with the values which will lead toward the acceptance of race judgments.

In summing up, if it were possible to mention all the methods included under numeral one (1) under each point, they would be seen to carry out a very consistent philosophy. A totally opposing view, and yet consistent in itself, would be found under two (2); and the middle view under three (3). Very few people are extremists, yet there is a tendency to lean more to one side than the other. Along the middle line lies truth. Emphasis on either the ideal or the practical in the kindergarten program makes it one-sided. The true relation is the union of the two, and the degree to which this relationship is maintained depends upon one factor. That factor is a personality.

The usual program states the topic chosen, the idea which the children are to gain from its consideration, and also the particular method and purpose of each part of the day. The real program can never be written, for the personal touch of the kindergartner arouses the controlling ideas and is the most powerful method.

DISCUSSION

MRS. ALICE H. PUTNAM, superintendent of Chicago Froebel Association.—It is interesting to consider the matter of habit. We hear much about spontaneity and freedom but little about habit. I should like to ask Mr. Barnes if we are harming the child by definitely directing his acts? Should he evolve his line of action from his own consciousness, or should he secure definite direction?

MR. BARNES.—A child should yield unquestioning obedience to someone before he is a year old. He should receive definite instruction in matters relating to personal habits or social intercourse and should obey without coaxing, begging, or delay, so that gradually these acts will become subconscious, leaving the conscious mind free for more important things. This obedience should, as the child develops, be transferred from the individual to the social group and its laws and then to the divine law. At the same time we must take care not to dictate to a child with reference to religion, art, or any of the higher and unsettled problems of life.

THE ART IMPULSE; ITS EARLY FORMS AND RELATION TO MENTAL DEVELOPMENT

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One is tempted to believe that in the matter of art education surely the final word has been spoken. Yet to every teacher whose work is alive the old fundamental questions are as new, as germane, as if he were the first to ask them.

How does art relate itself to the life of the child and what contributions does it make to the sum total of experience? This query is not to be turned aside. The entire fabric of the course of study—the specific problems—the technical sequence and method are molded in accordance to the answer.

To explain my meaning, we must know what kind and how well developed an interest it is which stimulates a child to express himself thru pictorial and decorative art. I am using the term interest in its largest sense. In a group of thirty children, engines, boats, birds, flowers, animals, thirty individual interests may be expressed by their drawings. That the thirty children show a rather common tendency to scribble something denotes a more universal motive power back of the specific engine or bear. It is this impulse which I have in mind.

It is evident that if the art work which we organize in the school is to function normally in the lives of the children it must respond in the fullest degree to this genetic motive. Hence, our question—The Art Impulse, its nature and relation to mental development?

Is it play? the mere physical resultant of the contact with suggestive material—the joy of pounding—of sticking fingers into soft clay, of wielding a paint brush? If so, then the educational attack must be planned thru materials selected with reference to the nature of stimulation and response. Is it utilitarian? Does the child picture his ideas primarily in order to communicate them? When he makes things is he dominated by the desire to use them? Why does he decorate them—is it because the decoration will enhance their significance? Is it because he plays with material or is it that he has an innate feeling for beauty which thus finds expression? Is this art impulse perchance wholly aesthetic?

If we answer that it is utilitarian, *use* becomes the point of contact. If it is aesthetic, we have but to give more and more opportunity for the exercise of those impulses which will finally lead to the consciousness of the laws of order and beauty. Doubtless we would all agree that aesthetic development is the educational function of art in the curriculum. Therefore the last plan would appear to represent the direct mode, consequently the economical method of fitting means to end. An art course which is at all points essentially aesthetic is most attractive.

But second thought is a reminder that such a plan represents economy only in case it is built on the real basic motive power. We have seen boys prepare a field for their athletic sports, or execute other projects distinctly their own. In the presence of the overwhelming momentum generated by enthusiastic desire we realize the waste that occurs in the schoolroom. Economy can be gained only by utilizing this energy. Any plan which we adopt, no matter how well organized, sinks to the level of a formal technical drill, attended by the evils of isolation, unless we make this vital contact. And so our question is still before us.

The answer must be sought outside of the schoolroom in the wider fields of art itself. Not the art of the adult race with the highly specialized interest of a renaissance, but the art of a culture which corresponds most closely with the stage of consciousness of the kindergarten or primary grade. This takes us back to the first scratchings on clay and to the primitive use of the picture and decoration. We need to know how these happened to be and what values they represented, if any, in the aesthetic history of the race. From this primitive art let us ask two questions: (1) The nature of the art impulse; (2) The direction of its development and the influences which have contributed to its growth.

You who are familiar with the literature of the subject know that formerly scientists assumed some one motive as the source of all these phenomena. Pictographs, personal adornment, decorative art, were all either motor, utilitarian, or aesthetic in origin according to the point of view of the writer.

More recent methods of scientific investigation have led ethnologists to a different view of the situation. Dr. Kroeber clearly states this change and so I quote:

> Every explanation of an origin in anthropology is based on three processes of thought which are unobjectionable logically but are contrary to evolutionary principles and the countless body of facts that support these principles. First is the assumption in the word *origin* that before the beginning of the phenomena explained, itself and its cause were absent; second is the belief that a suddenly arising cause singly produced the phenomenon; and third, is the idea that this cause as suddenly and completely ceased as it had before sprung up and that its product has remained unaffected by other causes unaltered but for wear and tear to the present day. The fundamental error of the common anthropological method of investigating origins is that it isolates phenomena and seeks isolated specific causes for them. In reality ethnic phenomena do not exist separately. They have their being only in culture. Much less can the causative forces of the human mind, the activities or tendencies, be truly isolated.[1]

In Dr. Kroeber's exposition of the matter, we have a view of the primitive consciousness in which the motives of later life exist in an embryonic and undifferentiated state. Instead of certain well-developed interests we are led to expect a composite in which are all sorts of individual variations, due to the *dominance* rather than the isolation of certain ones. It accounts for the fact which impresses the student of primitive art; viz., that in a way there is no such thing. That is to say, he cannot conduct his research as he would if he were studying the art of Greece or of the Renaissance. The decorative art of the Haida or of the Pueblos does not stand out by itself. There is no wide range of material in their culture of which one can say "Here they rested from their labor and said 'Let us rejoice and be glad. Let us make unto ourselves beautiful things just for the joy of the making.'" As their religious ceremonials are a part of their scheme of self-preservation so their art is inseparably bound up in those activities which have to do with the life processes.

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[1] A. L. Kroeber, *The American Anthropologist*, Vol. III, p. 308: chapter on "Decorative Symbolism of the Arapahr."

On the ivory handle of the skin scraper, on the bird snare, and the harpoon, on the bead moccasin and the skin par-flêche, on the tepee, the blanket, and robe, on basket and bowl, on the warrior's shield and club, on the wrappings of the dead and at the altar of sacred mysteries we find their art. It is a part of the entire range of primitive culture. Evidently it was not a festal garment to be assumed and discarded at will. The fact of its universality and of its rich content of associated meaning argues that it emanated from the mainsprings of being.

To the educator the significance of the discussion of primitive origins lies in the fact that these motives are so *rudimentary* that even experts have differed concerning their nature. It argues that if he is dealing with an equally elementary mind he will not be justified in assuming a fully developed or even clearly distinct interest. That on the other hand motives will be complex. Does not this correspond to facts?

When I have tried to check up my observations by former theories I could never quite succeed. If I concluded that utility started the machinery of artistic development I found cases where there seemed to be only a play interest. In other instances there was every evidence of its being aesthetic. If I built a course of instruction, however, on the last assumption, the results were too artificial and the children were too passive to indicate its universal dominance.

In fact, can you put your finger on any one genetic force which prompts a play activity? When a group of children laboriously fashion a retreat in wide-spreading branches and become tree-dwellers can you prove that it results from the love of climbing or from the delight in building, or from the enjoyment of the song of birds and the lace net-work of sky and green leafage? We know that all these and something more which eludes analysis are a part of that happy playtime, a playtime which is just as real as any experience of later life.

To state the conclusion concerning the nature of the art impulse as it exists in primitive consciousness let us say that it is true. It *is* motor activity, a response to the physical stimulus of material. It *is* utilitarian. It *is* aesthetic. There is something of all of these in every primitive art form. The dominant characteristic is determined by individual bias, by the persistence of some one of these interests. The universal fact is that whether in the race or the child these impulses are bound up in those pursuits which are centralizing and social.

We come to the second question—The direction of aesthetic development and the influences which have contributed to its growth. This necessitates explanation of the term aesthetic as applied to those qualities which are visual.

All of the fine arts have this in common; viz., they interpret to the same human mind. This mind is so constituted that it seeks *organization* of the materials with which it deals. Therefore logical arrangement or unity is the basic principle of all art. In those arts which make their appeal through the eye the unity must be visual. No matter how intricate the details, they must relate to each other in such a way as to produce a single visual impression. The visual impression is due to a more or less complicated but unconscious process.

As the eye moves from one spot of attraction to another in case there is an orderly relationship of units it follows that a joint movement is established so that it is carried thru the various parts of the decorated area.

The degree of resultant pleasure depends upon two things: first, the physical nature of this movement, whether abrupt or smooth, whether direct and simple, or subtle and complex; second, upon the ideas associated with the spots themselves.

The laws which govern such arrangements are stated in the highly specialized terms of philosophy as rhythm, balance, and harmony. The early conformity to those principles is evidently due to unconscious response to physical or emotional stimuli. This unconscious response has been the starting-point, and control resulting from conformity to principles has been the climax. Between these two points art has traced the path of evolution.

In primitive culture graphic art has taken the two directions of the pictographic record and decoration. In the pictograph naturalistic forms abound, and in instances such as drawings of cattle by Australian bushmen, or the horses and men painted on the tepee of the Crow Indians, the accuracy of representation is remarkable.

I trust you are all familiar with Mr. Fenollosa's lecture on the "Structural Basis of Art" as he explains so clearly the reasons why we cannot trace any line of aesthetic growth from these beginnings which possess no other visual interest than that of the mere *facts* of nature.

The relation of the various elements of the pictograph is dependent upon the organization of the ideas which are interpreted into them by people who possess common experience. As a rule this unity is not apparent to the eye of others.

Decorative art shows two well-defined tendencies: the naturalistic and the geometric. It is pretty generally understood that the naturalistic tendency is associated with those artifacts which belong to ceremonial usage. In these cases the natural object has represented associated values. Therefore its picture becomes a symbol of certain ideas. So among the Hopi, an eagle represented on an object imparts to it the strength and swiftness of the living bird. It is a sort of medicine. A picture of a buffalo or a tuft of feathers upon the raw-hide shield of the plains Indian renders it protective.

So either in preserving certain myths or in imparting medicine power to ceremonial objects, all of the emphasis is placed upon the associated ideas. There is every reason for the persistence of the interest in the thing itself to the exclusion of attention to the objective result as a matter of mere pleasure. Therefore, as one would suppose, this phase of art has contributed but little to the collection of well ordered decoration. As a rule it lacks the essentials of visual art and is chiefly literary in character.

Its contribution has consisted in the enrichment of the naturalistic motives but not in their structural adjustments. It has been an interest which has tended to break down rather than build up the aesthetic qualities of which we are speaking. The Eskimo finds relief from the tedium of the long Arctic night by carving on walrus tusk the creatures of his fancy. Polar bears follow each other in solemn procession along the edge of his pipe stem; the reindeer and dog sledge, even the great sailing craft of the trader, share in his dream life. These carvings serve no practical end and express merely the joy of expression. While naturalistic, that interest is not unduly emphasized and consequently these are more developed aesthetically than the symbolic picture.

The so-called geometric pattern has been used most commonly on articles of daily use as utensils and clothing. Its origins are attributed to the accidents of play with material and to the influence of technic methods. Certain aboriginal specimens would lead one to imagine that an ecstacy of physical delight possessed the potter as he scratched with stick or shell upon the plastic surface of the soft clay, that, surprised and pleased with the record of his play, he repeated the process with the intention of again producing the result, and, by degrees, that the undirected movement developed into a controlled effort to attain a definite standard. Other art forms show the working of the principle of expectancy. We find on an ax handle a painted pattern resembling the wrappings of leather thongs and we know that the power of habit had been at work. The eye accustomed to the ax-head tied to the handle seeks something in the place of the discarded string. Brush or knife supplies the lack and a series of patterns are generated. Other decorative styles are due to such accidental effects as that of the different colored warp and woof in textiles.

When I read Haddon's *Evolution of Art* I hoped that I had found the key to the situation. It sounded so plausible that conventionalized decoration had resulted from the breaking down of the naturalistic symbol, a unit which owed its initial use to some peculiar set of associated values, and thru the process of much copying had degenerated into formal pattern. His sequence of examples from New Guinea was so convincing that my unscientific mind "jumped" at many conclusions. It seemed quite probable that one could establish in the child's mind a logical basis for decoration by beginning at this same point, with a symbol significant to him, and thru interest in the idea to engender an interest in the effect produced by its expression.

A more extended study of the question showed that while the process indicated by Haddon occurred in some regions, in others the direction was quite the opposite. The prehistoric pottery of the southwest, for instance, gives every evidence of a geometric origin and there is reason to believe that one can trace an evolution from the formal to the naturalistic. In this case one may suppose that the conventional form suggested a certain object, the resemblance became emphasized, certain meanings were read into the design, and by degrees it ended in a naturalistic decoration. Many questions occur in relation to the subject which there is no time to mention. The point of the present discussion is—first, that decoration has sprung from not one but at least three sources; viz., motor stimulation, technic habits, and naturalistic symbols. Moreover, these are correlative rather than isolated. Second, the *predominance* of certain kinds of stimulation has caused the varying vicissitudes which are characteristic of primitive art. The analysis of these vicissitudes leads to the conclusion that certain influences have tended to break down decorative qualities while others have tended to build up standards of visual beauty.

The term standard is so hackneyed that it is a question whether ordinarily any one stops to consider its genealogy. Common educational practice would indicate a presumption that the individual is a passive recipient of influences brought to bear by outside agencies, and that his standards grow by an aggregation of these more or less isolated experiences. Of course, when we stop to consider the matter at all, we know that the individual is the active agent in the building up of his own standards, and that these result from a twofold mental process—abstraction and selection. When I express a preference for the colors, red and green, I have gone through the process of isolating or defining certain sensations as red, green, yellow, blue, etc. All such experiences taken together make up my idea of color. If certain of these are more agreeable than others they become the criterion. If experience is enlarged by recognition of neutralized hues my standard must undergo revision. If it persists it is the result of a new judgment, and has survived the ordeal of wider experience. If it is modified it is due to the enrichment of the original idea. If to bright and neutral color I add the abstraction of color *combination*, again my standard will undergo modification. Just as psychology no longer gives us an *idea* which is static, but something which is re-enacted constantly by the process of abstraction, so the standard is also a continuous act of selection. Its modifications are due to the combination of new experience with that which is already familiar.

I recently studied the Field Museum collection of pottery from prehistoric ruins of the Southwest. Among specimens from the same ruin the decoration ranged from crude uncontrolled markings to an application of pattern which might have done credit to a modern craftsman. The difficulties of fitting the decoration to a scheme of repetition on the curving form of a vase were most ingeniously overcome. When his pattern came out unevenly the potter modified a portion of the motive and fitted it into the left-over space in a way that made detection difficult. Here there was no doubt but that attention had been centered upon the decorative problem of spacing. This specialized interest must have resulted from a process of selection.

We can imagine that as the craftsman wrought at his task, no matter what his chief aim might be, the technical difficulties would serve to divert his mind to the mere effectiveness of the result. After the task was completed he would be apt to consider it somewhat critically. Certain effects would please him more than others. He would also compare his own with his neighbor's work, and in such critical review would build up a notion of what he would produce when he made another. In the course of events those effects which seemed desirable would persist and become more emphasized, while the incentive which originated the pattern would probably be entirely forgotten.

As the primitive mind seems to tend to repeat itself this process of selection must have been very slow. New ideas and variations were probably due to accidents and to the restrictions and exigencies of material rather than to direct invention.

The various materials used in primitive culture, clay, textiles, wood, metal, have furnished certain common aesthetic values, but each has also made a contribution which the others did not afford.

Repetition of any single unit as a line, dot, etc., is largely motor. Its many physical forms, idle drumming with fingers and feet, the dance, repetition of rhyming sounds, all coexist with its graphic expression. It is the most naïve manifestation of the rhythmic impulse and must have been about the first occurrence of visual order. The plastic quality of clay afforded the best opportunity for the free play of this motor activity and was invaluable, therefore, as a starting-point in the aesthetic development of the race. The same quality, however, admitted the indulgence in unorganized and barbaric realism.

Not so with textiles. No matter how crude the realistic unit, it was necessarily limited by the threads of warp and woof which caused it to assume a certain relationship to the entire fabric Modifications due to translating curves into straight lines also ensued. The necessity of counting threads led to some scheme of repetition and the resultant was not so much a picture of a *thing* as a well-ordered pattern built on the lines of a natural object. We see that these woven patterns exerted a reflex influence on other crafts and became perhaps the important factor in building up a notion of formal and geometric decoration.

The difficulties of exact copying in wood and metal have tended to the production of a series of generalized shapes and consequently have served to eliminate trivialities of outline. Structurally, clay, metal, and wood represent a progression in the evolution of qualities which reach their climax in the development of construction that is architectonic. When this high-water mark of aesthetic consciousness is reached by the race, or an individual, we may assume that it has passed the chrysalis stage and has entered upon a more complete exercise of its manifold social functions.

To summarize the conclusions, we state, as our thesis, that art must function in the life of the child as it has in the race. That the ultimate purpose of such functioning is aesthetic development. The consciousness of the child is complex and undifferentiated, and among equally undeveloped races art was bound up in the central social activities resulting from a complexity of motives.

That aesthetic development began in the accidental response to this complex stimulus and progressed to the point of conscious conformity to principles. That the principle of the survival of the fittest and the restraining and modifying influences of material served to develop the standards of visual order.

To apply this to our educational problem we would say that if we gain this normal functioning in the life of the child, the things which he makes, the decorative and pictorial activities must belong to him. They must emanate from his own center of interest. They must respond to the same rather complex stimulation. That is, they must give him a chance to scribble because he *does* like to make marks. They must give him a chance to fit out a play house because he will clothe it with reality. They must give him a chance to make things just because they are pretty. For this child of a modern hybrid civilization will be stirred not by some one but by each and all of these impulses. We are not presenting any culture-epoch theory. We do not advocate the necessity of prolonging or encouraging the state of savagery. Time is too short for such indulgence, and so, having determined the starting-point, it certainly is the duty of the educator to take the shortest road to complete control. This necessitates the most economical organization of those influences which have developed social standards—opportunities for first-hand experiments, and manipulation of real and typical materials, as clay, textiles, and wood.

The more specialized interest in the aesthetic elements of graphic expression will emerge slowly. We shall not expect to predict with any certainty the exact time when differentiation will be complete. Signs of the interest multiply more rapidly after the tenth year, yet the freshman high-school boy says "What is the use?"

May I say in closing that it is my hope that this hasty sketch of so large a subject may serve to indicate a valuable field of study? It is a study which would make teachers more sensitive to the signs of individual bias. It would give standards for a more accurate valuation of children's work. It would make it obvious that a course of art instruction should be elastic enough to admit of adjustments. That a deeper insight into the artistic experiences of any people would tend to do away with the evils of deadening systems I am confident.

DRAWING IN THE KINDERGARTEN

MRS. ALICE H. PUTNAM, SUPERINTENDENT OF CHICAGO FROEBEL ASSOCIATION

Before considering the child's kindergarten drawing, I would like to speak for a few moments of that which has preceded the kindergarten stage, and also we should consider that which is to follow, for the isolation of the work of any one period is likely to result in a misinterpretation of it.

In a very little child's first delight in marking on any surface—paper, board, damp sand or clay—the fact that he has power to change the appearance of it—that he is doing something, appears a sufficient end in itself. But soon thru his movements, indefinite tho they are, there comes a something which has a meaning for him, and he turns to mother—or the bystander—for the sympathy and appreciation of his effort. It is thru her response that his "muscle-minded scribbles" come to have a clearer meaning for himself.

Dr. Dewey has given this thot in his *Pedagogical Creed* when he says: "It is thru the mother's response made to the child's instructive babblings, that the child comes to know what those babblings mean. They are transformed by the mother into articulate language, and thus the child is introduced into the consolidated wealth of ideas and emotions which are summed up in language."

All thru Froebel's *Mother-Play Book* runs the same idea; it pervades every activity which interests the child, and it is not too much to say that thru a similar response we find one of the means by which interest in the graphic arts is fostered.

In passing to the thought of drawing in the kindergarten, I again quote Dr. Dewey: "Every mode of expression, no matter how mechanical, no matter how fantastic, no matter how impressionistic, has the two sides of idea and technique." Long, long before a child has any notion of technique, he revels in the use of the pencil to express an idea. At first it is vague, but it gains strength thru the act of giving form to it. Each object is isolated; but little by little they begin to appear in relation to each other—and a story, an organized thought, runs thru it all—and lo! he has "an illustrated drawing." Mr. Bailey says of this type of drawing that "it opens the realm of pictorial art to the young child more directly than any other type of drawing yet discovered." It is closely allied to the primitive picture-writing, in that it is mainly used to give information concerning experiences which have interested the child, and the pleasure he gets from it is not exactly aesthetic pleasure. I well remember that when the drawing of my own children seemed to them complete, they were generally inclosed by a frame—and this frame was highly decorated with marvelous scallops around the edge, numerous dots within the inclosing bands, etc.—and here, I think was the first sign of a desire for beauty in their productions—something to please the eye, as well as the mind. A child will often take a stick and make holes at regular distances in damp sand or soft clay; when that happens, I would suggest to him that he lay the stick lengthwise above and below the holes—see if it doesn't look prettier. I cannot agree with many of my co-workers who think that a child doesn't care for symmetrical arrangements. Again and again a mere toddling baby will push the chairs back against the wall and, if one is out of line, will straighten it and express delight. True it is mainly the activity which is interesting—but the fact of arrangement is there, and we can nourish it by giving things and conditions for this instinct to work on, or let it starve itself out. It is just here that the sticks and twigs of the kindergarten are so suggestive that I think their use should be encouraged. When the child is in this stage or state is the time for many good outline pictures. Stencils too, should be used more in the kindergarten than I think they are commonly used. The little old-fashioned transparent slate was always a delightful toy in my family, and I have used it not a little in the kindergarten. The child in tracing the pictures gets the feeling of the movement and all unconsciously the direction and relation of lines comes as a fact—as a part of the wholeness of the picture. The main good of this, at this stage, is the way it reacts on the child's imagery, but as he goes on he finds a bit of technique a help. What to draw is not now the only question, but how to draw is beginning to be of some concern to him.

I used to use rightly proportioned sticks and tell the children how to make the skeleton figure of a boy—I could never succeed with animals, alas! and then they would change the attitude themselves—make the fellow run, kneel, sit down, etc. It was always great fun, as much to me as to the kindergarten children. Later when these were wanted for the board, the children would measure the sticks, and the lines would appear in very good proportion. The children came in time to want to make their drawings mean something to other folks as well as themselves. While they have much time for evolving their pictures and designs from the depths of their own consciousness, it is good to direct their attention to what others have done. I'm not one bit afraid even to dictate an occasional good design now and then and let it go into their scrapbook—keeping one of these for their original designs, one for those they find elsewhere.

I cannot believe Froebel's drawing is good for children at this stage, tho I believe it has a place in the plan later on. Just as a good reading teacher would know when and where she might give a child a real drill in phonics, apart from the reading in which the child gets and gives thought, so I believe a child likes a bit of technique when the right time comes. I do not think life is long enough, however, to go thru this network drawing as drawing—but for mathematics. I believe there is a great deal that can be gotten from it, but not for the kindergarten stage.

And now, what of the period after the kindergarten—how can we prepare the children for that? Mr. Bailey's definition of drawing as given in the *School Arts Book* for June is very serious, and ought to be considered. He says it is the "putting down with the pencil point the thoughtful, sincere, truthful facts of form." We may not be altogether satisfied with the statement, but it is surely to be considered most carefully. But has the kindergarten everything to do with or for such a standard? If so, what is our relation to it? "Thought," "sincerity," "truth," are not the product of spontaneous generation, any more than any material thing—but the germs of these living principles may develop if we provide a right "culture medium" —as the bacteriologist would call it. This the kindergarten may furnish.

Thru the training of the senses, "the doors," as Froebel calls them, "which swing two ways, outward to nature, inward to the soul," the child begins his thinking. In all of his handwork this thought is to be wrought out in all sincerity and truth. This is to be the daily work of the little child. That which comes to him thru the senses is not even with us in the kindergarten, to stop with mere present delight, but is to be used for larger and larger ends—growing gradually into a purer, wiser understanding of the meaning and mission of beauty.

One thing more: There has been a great deal of work done in the kindergarten under the banner of spontaneity and freedom which is positively, hideously ugly. Crude, a child's work may be—should be—but I do not believe it need be ugly. I do not believe even a child should continually violate the canons of art—if that happens, it is because either the conditions or the medium of expression or the general influence of the teacher have not worked together—but as has been well said: "The child's work at every step should help him to the best utterance of himself, to sincerity, genuineness, unconsciousness, and power."

THE USE AND ABUSE OF DESIGN

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In discussing the use and abuse of design in the kindergarten, it may be well to note that there are two phases of the subject, so distinct as to be quite separate.

First, there are those productions called, in the parlance of the kindergarten, beauty-forms or forms of symmetry. These are usually made with the blocks, tablets, rings, and parquetry papers, or, less frequently nowadays, with the Froebel system of paper-cutting. This is what the word design means to many kindergartners. To others, however, the word has a far different meaning. It means that form of artistic expression which is known as design by an artist or an art-teacher; it means the arrangement of units under the laws of repetition, balance, and harmony; it means the production of borders, ornaments, and sketches calculated to decorate definite objects; it means the appreciation of the beautiful, begun in the kindergarten and carried on thruout life. The first use of the term design is peculiar to the kindergarten, the second is familiar in all grades of the school and indeed, in life in general.

The chief fault with the formal design of the kindergarten is that Froebel's tendency toward over-emphasis of geometry has been followed, while his playful spirit has been forgotten by many.

Froebel gave as one of the uses of the gifts the production of symmetrical figures which he called beauty-forms. We find, however, that in his description these beauty-forms are translated in terms of life-forms, for he says of a figure, "It appears to us something, but we do not know what is formed by it; we call it a picture, and it will look now like a flower, now like a star." Also later, in describing the different moves in a sequence, he speaks in terms of life-activity saying, "Come child! we will dance the cubes," and he gives little rhymes for the child to sing for the dancing. Surely this playful changing of shapes is very different from the dictation of sequences of symmetrical forms which one sees in many modern kindergartens. Contrast the usual method of presenting forms of symmetry with what Froebel says of this kind of work. He says, "How shall these representations of forms of beauty be carried on with the children? In the same way as mothers play with their children, of their own accord and guided by motherly love. Some particular object which has a symmetric form has been represented by the mother or the child or by both together. Thru its symmetry it captivates for an instant the child's attention. The watchful mother perceives the fascination and seeks to heighten and retain it through words spoken or sung."

Notice the life-names in the rhymes he gives:

This is a very pretty play
All our blocks in a wreath to lay.

Now all our blocks to the middle go
And clearly a beautiful star they show.

When the flowers and circles meet
Then we look like flowers sweet.

It is difficult to see how a kindergartner, who tries to follow Froebel to the letter, can read these words and still continue to dictate to children sequences of forms which have no meaning whatever to the child. What is a sequence to the adult mind may not be to the child's mind because he does not see the underlying philosophy.

Recently, as a matter of observation and experiment, I dictated a long series of forms with blocks. The children obediently made form after form with little apparent joy. Finally, I worked into a more divergent figure which I thought too scattered to be seen as a whole by the children. I was surprised at the spontaneous burst of admiration with which it was greeted. "Ah! isn't that pretty?" "That's pretty," and "It's a star," came in a chorus from children who had been almost silent up to that point. To my mind, this was an indication that each form is a separate thing to the child to be approved or not on its own individual merits, not as part of a larger whole.

The use of a sequence may be legitimate as a means to an end but it is certainly not an end in itself. Easy forms must precede the more difficult ones but each one must have a meaning of its own. I do not believe that sequence work can be made to any extent the outcome of the child's own thought, and I do believe that Froebel was right when he said, "All that does not grow out of one's own inner being, all that is not one's own original feeling or thought, or at least awakens that, oppresses and defaces the individuality of man instead of calling it forth." I believe that, to be educative, design must become the working out of a problem. The child must see the need for it and must think out the best way to fill that need. To be sure, an able teacher can make almost any work educative by the way in which she presents it, but, by the same power, she can make a thing which is inherently interesting that much more educative.

What is true of method is true also of materials. Why should we confine ourselves to blocks, tablets, rings, and parquetry papers, when there are so many leaves, grasses, shells, nuts, etc., that might serve the same purpose and that appeal so strongly to the child? Primary education has long since discarded the type forms for drawing and other work and has taken nature material instead. The kindergarten would only be carrying out Foebel's suggestion if it did the same. Perhaps by studying primary methods the kindergartner might get a better perspective of the child's life, and so help him realize his highest possibilities in each stage of his development.

Turning now to the other phase of the topic: What are the reasons for teaching art in the kindergarten? To answer this question we must first answer the larger question: "Why do we teach anything? What is the aim of education?" Looking at the many and varied answers to this question, we find that right living and adjustment to environment, natural, human and spiritual, is the general ideal sought. If this is the aim of education, it must also be of every branch of education. We must teach art not because it may train a few possible artists but because it affords an experience which will broaden life.

If we look at education from the cultural standpoint, we find that the study of artistic expression gives the aesthetic and artistic development which increases a hundred fold the richness of life through the power of appreciation of the beautiful. If we look at it from the utilitarian standpoint, we find that the study of artistic expression gives the means for gaining control of the mental image and trains the imagination. Imagination is at the foundation of all human activity. The power of imagining things as they are and as they would be in different combinations lies at the very root of production and invention, and makes progress possible. Imagination creates the sympathy which governs our relation to those around us. I have heard it said that lack of the picture-making faculty is responsible for most ot the criminals of the world; that a person who could imagine beforehand all the effects of an act would avoid crime. If the study of art will train the imagination and help men to live better lives, it is well worth while. Design is a form of art which may be systematically studied by even a young child. It inculcates a love of order which is the basis of righteousness. Denman Ross says there is more ethical value in manual training than in the study of a dozen sciences.

For the child of kindergarten age the first of the laws of design is the all-important one. Balance and harmony are too subtle to appeal to him, but repetition or rhythm is the response to a native instinct. Life itself is essentially rhythmical. Every bodily and every mental process shows this. Respiration, heart-beat, and the processes of waste and repair are the constant accompaniment of life and if their rhythm be disturbed, pain is the result. Day and night with their alternation of activity and rest have a definite influence over the mind. We might multiply examples by showing how the patter of the raindrops, the ceaseless ebb and flow of the ocean, the growth and decay of plant life, the change of season, and many other processes of nature are a part of life and have affected man thruout the ages.

It is perfectly natural that children should find satisfaction in rhythmical activities and forms. Design is rhythm applied to the picturing activity. Groos in his *Play of Man* states that the pleasure which is derived from form is primordial and universal, and he goes on to trace the development of design in the earliest forms of art. In so far as the Recapitulation Theory is applicable, we may gain some knowledge of the child's instinctive attitude from the study of primitive life. In the early development of the arts, man decorated his person, his pottery, and his baskets with representations of the activities of nature. A series of vertical lines represented the fall of rain, a broken line stood for lightning. These show simple repetition tho the latter begins to have in it the elements of contrast and alternation shown again in the compound curve for waves, and the alternation of sun and star indicating day and night. As the race progressed there came to be a fuller appreciation of design and mere repetition was supplemented by symmetrical and bisymmetrical forms arranged with reference to balance and harmony and studied as to proportion, relation to background, and appropriateness to the subject decorated.

In the kindergarten, we naturally begin with simple repetitions and alternations which the child happens upon in his play. In drawing, painting, and other occupations, the repetition of a unit may be the result of simple efforts of control. We may wish to give the child an opportunity to experience the activity of using a brush and he may just daub, daub, daub, and if by chance, on holding it off, he discovers a system of arrangement, he will try to reproduce it or will vary it for the satisfaction of this instinct. Simple arrangements in stringing or pasting have a wonderful charm for the child. Even grown people find a certain fascination in stringing beads and similar activities.

After such work involving only repetition more purposeful design may be introduced and the child may compare different pieces of work and learn that beauty depends upon spacing, balance, and tone as well as upon repetition and alternation.

Every design which a child makes should have some excuse for being; that is, it should be made to suit some definite purpose. It must not be a border or ornament such as we use on objects but it must actually decorate the object itself. The crafts are the natural basis for design. Pottery, basketry-weaving, bookbinding, and wood- and metal-working supply the productions which call for decoration and in a school where these industries are taught, most of the design work would originate in this way. But what about schools where there are no facilities for teaching these crafts? Must design be imposed upon the children according to the teacher's ideas? By no means! Most of the failures in the teaching of design result from this very fault. The object to be decorated and the need for the design do not grow out of the life of the children and consequently interest is lacking. Subject-matter and material should be in a large degree the outgrowth of the environment and should differ in different localities. For instance, with children whose homes and schoolroom were destitute of curtains, we would not attempt to make a border for a curtain. Similarly, we would not lead children who had never seen a rabbit to use this form in decoration. Of course, in both of these cases the teacher might provide the conditions to make the lesson of vital interest. If a window or a closet needs a curtain, nothing could be a better excuse for a study of design than the making and decorating of such a curtain; and if a rabbit visit the kindergarten or the children be taken to see one, it would be very natural to use that as a unit of design. Lacking these incentives, however, there are always available articles made of clay, wall-paper, carpets, and curtains for the doll's house, borders for the blackboard, book-covers, blotters, calendar-cards, wall-pockets, picture frames, valentines, May-baskets and boxes, and other construction work.

When the object to be decorated has been chosen, the kind of a design to be used becomes the problem. Dr. Haney says, "A design which is to be applied must primarily consider both the purpose of its application and the nature of the form it is to decorate. The first question must aways be: Is the problem a proper one? Should this form be decorated; and if it should, what shall be the nature of the decoration?"

These questions should be answered by the children after sufficient study of good examples. Classic decoration, as well as artistic designs found in the environment, should be presented in order to give the children a wide range of visual material to influence them in the selection of designs for their work.

Friezes for the room, made by the combined efforts of the class, are very good. For these, the units should be objects of interest, appropriate to the line of thought for the season or the day. More or less natural outlines should be used, as conventionalizations come at a later period. At Thanksgiving a frieze may be made by alternating corn-stalks and pumpkins on a background of soft brown. At Christmas the units may be a Christmas tree and a Santa Claus cut from crèpe-paper decorations. In March a windmill and a boat have been used effectively. At Easter a chicken and an egg may be used and later in the spring, flowers or animals, birds or insects.

I leave it to you to decide which of the two phases of design is more educative and which you will use. At the same time, I would remind each one that we are not true disciples of Froebel unless we present to the children that which serves to awaken self-activity in the broadest sense. Whatever the form of the work it must be self-expression. What they do is far more important than what they make.

SUMMARY

There are two distinct phases of design: (1) making symmetrical figures, borders, etc., with the traditional kindergarten material; (2) decorating definite objects with designs studied from the standpoint of art.

The first form of design was described by Froebel, but it seems that his spirit has not been imitated by those who use forms of symmetry in uninteresting sequences. These are not educative when given in the usual way. Children do not see sequences as adults do because they cannot understand the underlying philosophy.

The second phase of design may be made the outgrowth of the children's own experiences and, therefore, allows great opportunity for development.

We teach art, as we teach all branches, to broaden the children's experience and help them to live. Art trains the imagination—imagination is the basis of all human activity.

Design should teach the laws of repetition, balance, and harmony. Repetition is natural to the youngest children because rhythm is fundamental to life. Balance and harmony can be taught in the grades better than in the kindergarten.

The crafts are the natural initiative for design. Where these are not taught objects made by the children should be decorated or friezes and borders should be made for the room, curtains, etc.

Whatever the form of the work, it must be self-expression. It is the process, not the product, that counts.

MOTIVE AND METHOD IN PRIMARY ART WORK

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The object of all our thought is the child. In its broadest interpretation, the aim of our educational system today is to develop the head, the heart, and the hand—that trinity of the individual—symmetrically, giving him a better appreciation of right living and happiness, and a knowledge of how to get the greatest measure of enjoyment out of life in this beautiful world of ours.

We want to make the child intrusted to our care self-helpful, and possessing power of initiative, preparing him for his life's work, giving him the ability to appreciate, the power to do, intensifying high ideals, and increasing his efficiency so that he shall be of the greatest service to society.

Ideals in education are rapidly changing In the old idea individualism was an unknown quantity. The new scientific spirit has completely revolutionized many departments of our education, and is rapidly invading others. Character building is the first aim in the new education, and in our endeavor to erect a perfect structure, we seek to cultivate a love of the beautiful in music, literature, art, and nature. This love of the beautiful and for it, as an abiding element is, perhaps, second only to religion, as a protection against gross living.

The school should be a part of life, not merely a preparation for life. The conditions of our environment have undergone such rapid changes that our process of reaching the ideal in education must undergo radical changes also. Longer school hours, different home and neighborhood environments and occupations demand a change in curriculum, if we wish to give a child the same insight, skill, and independenee which marked our men of action in the past. We must also teach them the doctrine of responsibility as well as give them the power to do.

One of the greatest civic needs today is training for better citizenship and truer patriotism if we hope to maintain the original standard of a republic.

The school should be the most potent influence for good, clean, honest, conscientious, interested citizenship. Ruskin sounded the keynote of warning in these words:

> We are always, in these days, endeavoring to separate intellect and manual labor, we want one man to be always thinking and the other to be always working, and we call one a gentleman and the other an operative; whereas the working man ought often to be thinking, and the thinker often to be working, and both should be gentlemen in the best sense. As it is, we make both ungentle, the one envying, the other despising his brother; and the mass of society is made up of morbid thinkers and miserable workers.

The greatest institution in the world today is still the home, despite what some skeptics say and write regarding the lack of home influences in our congested districts like those of New York City. The influence of the home is felt the earliest, the longest, and the strongest. A most important thing in education, then, such being the case, is any subject which will enable the caretaker to make that home more attractive. Beauty is always uplifting. We hear a great deal today about being in harmony with our surroundings, we admire a well-balanced individual, and we all appreciate the rhythm of motion. These three things, balance, rhythm, and harmony, are the qualities which everything must possess to be beautiful. They are the foundations of the artistic and this foundation is to be laid in drawing courses of our schools.

I. There are but four ways of giving our thoughts to others: language, written or spoken, number, music, and drawing. Where adults express themselves almost wholly by spoken or written words, the child, as the savages, attempts to express himself by pictures as well. With the child this expression by picture drawing is a real pleasure, a form of play. Froebel first called our attention to the fact that play was a great factor in the child's development.

The desire for self-expression in music and art is instinctive. In the early years of a child's life he finds it necessary to acquire his knowledge by sight perhaps, more than hearing, and since his vocabulary is limited he turns to drawing, appealing to the sight of others as the easiest means of self-expression.

II. In the second place we all realize that "Knowing is not a complete process until it terminates in the act of doing." The ideomotor activity—the co-operating of a thought with its muscular expressing—is one of the sore needs of the present-day education. It is to fill this need for the right directing of motor activity and to train the child to a greater degree of an interest in and knowledge of his surroundings, based upon an instinctive desire, that drawing is recognized as an essential and not as a fad in our public schools.

The feeling that drawing is still a fad and will eventually be relegated to become a companion with other fads, still exists in certain localities, probably because it was not included in the ancient venerable, and, so far as they went, eminently essential three R's, tho its educational value is almost universally conceded. It is connected with the arts and trades much more closely than is generally recognized. There is hardly a profession in which it is not used directly or indirectly, either in the preparation for or in the profession itself. Doctors, manufacturers, architects, constructors, engineers of all kinds, merchants, journalists, all must plan out their ideas on paper first.

If this fact were universally recognized the subject would receive a wonderful impetus and parents would demand and insist that a thoro course should be taught their children. All opposition to the school art movement would disappear and it would be but a few years comparatively before its beneficial results would everywhere be felt.

As a vehicle of expression 'tis most potent. It gives the individual another avenue, and a very direct and concise one, by which he may give his thoughts and emotions to the outside world. Dickens—that monarch in the art of word pictures—takes three pages of closely printed matter to tell how a cartwheel came off. A bright boy can tell the same thing on one sheet of paper, with a dozen strokes of the pencil, and be as well or better understood. The picture is a language common to all classes of society and to all nationalities. In the dark ages, they used this means of expression to educate the mass of the people in religious belief. At the present day, another style of picture, the cartoon, is used to call attention to some vital issue of national or local importance.

We have noticed that the first barrier to the successful presentation of drawing is the idea that drawing is a fad. The second great barrier is lack of preparation and knowledge of the subject on the part of the grade teacher. In many cases, she received no early training in drawing, and during her special preparation, gave so short a time to this branch that she failed to get any knowledge of the science of it. The word talent is one that is very much overworked. It is more or less indefinite in its meaning, but all the people who have done things in this world of ours are supposed to possess it in large quantities. Thomas Edison, the wizard of Menlo Park, was once asked what he considered the secret of his genius. "Genius, my friend," replied the great inventor, "is one-tenth inspiration and nine-tenths perspiration." "I cannot draw; I have no talent," is a common cry of the grade teacher. "I don't think my child can draw; he has no gift for it," is the comment often made by the uninformed parent. And it is very difficult to convince a person with such an idea that it does not require talent to learn to draw, that anyone can learn the principles which underlie all art work, just as easily as he can master the principles of mathematics. All he needs is the willingness to try. Drawing is a science and should be taught as such. It consists of principles and causal relations, all of which may be taught and learned as easily as the principles of mathematics. The subject comes under three heads: First, representation, the reproducing on paper of our surroundings; second, construction, the art of making; and third, design, the art of decoration. The principles of the first are four in number—position, proportion, direction, and perspective. Each of these in turn have subdivisions. Position teaches the relation of one object to another object, as placing one tree at the right of another. Proportion teaches the relative size of one object to another, or of one part as to another part, as the comparative size of the windows to the side of the house, or the relation of the height to the width of an object. Direction teaches what lines are used to represent certain surfaces, as a road winding up a hillside, and perspective teaches one to reproduce the third dimension, thickness, on a flat surface—as looking down a village street.

All this can be taught or learned as easily as the rule of three, and it really forms a very much more interesting lesson. A little child has absolute faith in his power to do, and perfect willingness to try to draw anything proposed, so long as the object or scene is one which appeals to his imagination. He is not abashed if the result does not rival a masterpiece in its beauty. His Indians, soldiers, autos, and trains are to him of the greatest interest because that is the way his imagination pictures them to him, and he considers one stupid when he fails to recognize that the lot of lines he tenders for inspection is his favorite horse or some much-loved member of the family.

There is not the timidity and fear to overcome, which prove such a stumbling block in the path of the older ones, when they first try to reproduce something on paper.

So far as is within her power, let the teacher nurture that unabashed willingness, encouraging each effort, praising the good parts, for there is always something good when the effort has been there; suggesting another look to make the mental image more vivid and striving to keep off the evil day when the child shall awaken in self-consciousness to defects, and lose the desire for that form of self-expression.

Energy indirected has a tendency toward the destructive side. Energy when directed toward constructive and creative work will prove a blessing to the individual and his associates, and it is our business as teachers to direct that energy so that it will prove a blessing. For there is just so much vital force which seeks an outlet and, being used in the right direction, the destructive tendencies will disappear because of disuse.

No great desires have ever been given with the thought that they be left fallow. They were given by the Giver of all, for some specific purpose. God had some definite design when he gave the love of picture-making to the little child. A mother once gave this thought—"A thing that the child loves to do so well must have some definite bearing upon its culture and judgment."

Taught in a practical manner as a science, drawing can be mastered by everyone. It develops the aesthetic qualities in our natures and makes us more keenly alive to the beauties of our surroundings. It is another vehicle of expression. It lays the foundation for many of the professions which the child may wish to enter in later life. Of all the reasons why drawing should be taught to children, however, I am inclined to put into most prominence this one, the child loves the work. To reproduce all the things he loves gives him the keenest interest as well as a delightful channel whereby he may use his mind and at the same time give play to his desire for muscular activity.

The result of careful training in this branch is "self-reliance, honesty, accuracy, perseverance; it invests dull subjects with new life, develops wholesome respect for labor, and the laboring classes; it keeps the boys longer in school; it trains the mind to think, the eye to see, the hand to do, and it gives systematic drill to the child's motor activities whereby he gains complete control of his powers."

DISCUSSION

Elizabeth Harrison, Chicago Kindergarten College.—It is interesting to note that the authorities on art education in their threefold classification of "representative," "constructive," and "ascetic" training agree with the kindergarten division of handwork into "life-form," "forms of knowledge," and "forms of beauty." We are urged so much nowadays to connect all school activities with life that some kindergartners have dropped all work with forms of symmetry or "beauty-forms," forgetting, it seems to me, that a love of beauty ought to be a part of all lives. For deep down in every heart is a hunger for it, and a love of it means much to any life. The danger that today threatens the kindergarten is that it may be turned into a preliminary training-post for utilitarian purposes, and all poetry and beauty be denied the young soul. We talk of the enormous importance of training for *social service.* Has not the life that loves and knows how to create beauty an added power for social service? Therefore let us continue to give to young children experiences in creating "repetition, balance, and harmony" in a simple childish way, as well as experiences in creating utilitarian objects.

A second point which interested me was the strong plea made for bringing the child into contact with art beyond his own simple efforts. If pure air invigorates his physical body and noble conduct inspires him with higher ideals, surely artistic surroundings must feed his love of beauty and harmony. And all that tends toward development of beauty and harmony rather than ugliness and discord helps to elevate life and advance it toward its spiritual goal.

W. N. Hailmann, Interlaken School, La Porte, Ind., was called upon to say a few words. He approved the general tendency of the papers, insofar as they emphasized the pre-eminent importance of self-expression on the children's part as contrasted with the logical requirements of the occupation. He expressed great reverence for the "divine crudeness" of the children's work and deplored the still persistent efforts of teachers to suppress the latent possibilities of which it gave evidence, by precocious forcing of the teachers' view upon the child.

In discussing certain fundamental principles on which the solution of the problems involved rests, he would substitute for the conventional trinity of head, heart, and hand, what he called the "quinity" of the exploring hand, the interpreting head, the appreciating and desiring heart, the planning or directing head, and the achieving hand. In this quinity he assigned to play a place in its first half; to drawing and art, in the second half.

He warned the kindergarten against infringing in its educational work too extensively upon the province of the primary or elementary school. In the development of the individuality that comes to the family, he would assign to the kindergarten predominantly the task of socializing this individuality and to spare it the pressure of the conventionalizing elementary school.

In conclusion he referred to a maxim of Goethe's as a key of the situation in the growth of the child's purposes or needs which, he held, the kindergarten would do well to adopt and which he quoted as demanding that in his development the child should or does pass "from the useful, thru the true, to the beautiful."

George W. Eggers, head of Department of Graphic Arts, Normal School, Chicago. —It seems futile for a mere art teacher to attempt to add anything to what our speakers of the morning, with their richness of experience with the tiniest of children—the real artists—have so beautifully said.

There is one impression, which above all others, I always carry away from a gathering where many kindergartners are present, and of which I have often desired to speak to them. It is that sense of repose—that sense of having in some way solved the problems of life that vex the rest of us, and of having achieved thereby a sort of poise or spirit of quiet, a mood which even communicates itself to the fortunate Philistines who now and then find themselves within the kindergarten camp.

It is the kindergartner who has brought the more reposeful, more wholesome spirit into education, and we cannot help feeling that in imparting it to the children under her care she has cultivated in herself a greater abundance of the same.

Two or three years ago I heard Dr. Hillis define art as "the bodying forth of an inward soundness." This definition, quaint as it may seem at first, will bear deep analysis. To produce great art, individuals, as well as nations, must possess within themselves first of all this "inward soundness."

I believe that the atmosphere or spirit which we feel, whether we visit the kindergarten class or the gathering of kindergarten teachers, this wholesome outlook on the garden of life, which I have mentioned before, I believe this to be the manifestation of that "inward soundness," and further I believe that if the vital and characterizing ideals of the kindergarten were to be carried up even more freely than they now are thru the grades, and spread out into our grown-up world, and into the life of the nation itself, we would need feel no concern for the future of that national art of which art teachers dream—for it would be as natural a reality as the blossoming of the flower in its season upon the plant—the resistless expression of the nation's inward soundness.

CONSERVATIVE AND PROGRESSIVE PHASES OF KINDERGARTEN EDUCATION

PATTY S. HILL, TEACHERS COLLEGE, COLUMBIA UNIVERSITY, NEW YORK, N. Y.

[*Outline*]

1. The kindergarten represents a body of teachers who are studying, progressing, and growing. Kindergartners are well represented in universities and university extension courses, studying philosophy, psychology, child-study, nature-study, art, primary methods, etc.

2. The kindergarten is conscious of its own deficiencies, hence the great desire to study, modify, and reconstruct.

3. Criticism of the kindergarten is coming from kindergartners themselves, as well as from those outside the ranks.

4. Division into parties is a credit rather than otherwise. This is the wholesome evidence of differences of opinion necessary to growth and progress.

The differences of opinion in the kindergarten are no more marked than in any other department of education, as, for example, the differences in attitude toward the three R's in elementary education. The same differences in point of view are to be found among students of art, literature, philosophy, psychology, theology, etc.

5. Main causes for the division into parties, found in kindergarten circles, are differences in temperament, in training, in philosophy, in psychology.

6. Needs for future development of the kindergarten: (*a*) Kindergarten training schools to affiliate with normal schools and universities in the preparation of their teachers; (*b*) The need of supervisors of both kindergarten and primary schools who have been prepared in both kindergarten and primary education; (*c*) Superintendents and principals of schools who have given the same respectful study to Froebel and the kindergarten that they have given to Herbart and the problems of the elementary school.

THE CO-ORDINATION OF THE KINDERGARTEN AND THE ELEMENTARY SCHOOL

Mrs. Alice H. Putnam, superintendent of Chicago Froebel Association.—After declaring that there is a break between the kindergarten and school, Mr. Gregory passes at once to the methods employed in dealing with the difficulty.

I believe a better way would be to look the distinction squarely in the face and see what causes the trouble. That is the way a physician would begin his curative process, so I ask you to consider whether the ideals of school and kindergarten are the same? The most concise and masterly statement of Froebel's principles that I know of is that given by John Jay Chapman in his essay on "Education—Froebel," in the book, *Causes and Consequences.* He sums up Froebel's laws thus: "The child is a growing organism. It is a unity. It develops thro creative activity. It is benefited by contact with other children, and is happy in proportion as it is unselfishly employed." These principles are needed at every step of the educational way. They are as fundamentally true for the twelfth grade and the college as for the kindergarten. But as Mr. Gregory has said—different phases of the same truth appear at different stages of growth, and varying applications are needed.

"A growing organism!" I sometimes wonder if people who have not lived with very young children for twenty-four hours of the day, year in and year out, begin to realize the infinite and constant self-adjustments of the child to the situation in which he finds himself. Do educators in general know what it means for the mother or kindergartner to keep pace with the child's constantly changing attitude in the very early years—mentally, physically, and spiritually, in order that at each stage she may make the conditions for the development of the child what he needs, what it is best for him to have, that he may grow harmoniously? Is this truth recognized and applied by the kindergartner in the making of her daily program? Is it a plastic or fixed plan? Is it determined by a general knowledge of children—without reference to a particular group—or does she really know what this particular group can do or can not do, and does she try to hold each one to his best? And the school: are the lessons, the discipline, the requirements, based upon this living fact, or upon conventions and traditions? Just where does the child's living estimate of the value of these traditions appear? Do school boards reckon with it in the planning of the buildings and playgrounds—or is the necessity for right quantities and qualities of the air the children breathe properly met; the seats in which they spend considerable time—are they adapted to growing organisms?

"The child is a unity." As Colonel Parker used to say—"the whole boy goes to school." His restless body isn't sloughed off at the schoolroom door. He is constantly emerging from the "big, buzzing, blooming confusion"—or, as Froebel calls it, "the state of chaos"—and trying to find himself in relation to all things which interest him. In play, his mind acts in its wholeness. Is it so in his work? Is that too an expression of all there is in him? This leads to the third truth · that only thru creative activity can the child find an "at-onement" in the conditions of his daily living. This does not mean that everything he does has to be evolved from the depths of his own consciousness, but that thru the whole-hearted doing of play or of work—thru the doing of things for which he feels there is a purpose—even if it should be an apparently formal thing like working now and then from dictation in the kindergarten, if it has a meaning to him, if he feels that something is coming of it—he will give himself to it gladly. Any action that takes the child's whole self into play—that calls for an exercise of feeling, willing, and thinking, can't help being useful to him. Now how much chance is there for this in the average schoolroom? "To have found one-fourth of an answer through his own effort," says Froebel, "means far more to the child than to half hear it in the words of another." The same idea Browning gives us, "Well it is for the youth to strive through acts uncouth toward making, than repose on aught found made."

The fact that children are benefited by other children, and that it is good to lead them to live more for others, needs no comment. We all believe it. The vital question is: Has Froebel on the whole given us a true ideal? The question of the personality of the man has nothing to do with the case. He was certainly consistent—true to his principles—and on the whole they are in accord with modern psychology. No one has ever illustrated the idea of motor activity as the main center of early development more emphatically than he has done in the "Play with the Limbs" in his *Mother-Play Book*. Dr. Dewey said to me once, "the whole of psychology is in that play." So, too, we find his lessons in the beginnings of sociology true to the core.

As to "standardizing the kindergarten," listen to Froebel—"A life whose ideal value has been perfectly established in experience never aims to serve as a model in form—but only in its essence—in its spirit." A word as to the materials which are to the little kindergarten child what books are to the school—one means by which the child gets thought—one means by which he expresses himself—one means by which he comes into close relations with form, color, in fact with most elementary attributes of objects, useful only as means to an end. Time will not permit me to make a plea for the use of most of the kindergarten material. It helps the child in the use of nature material in that it gives concrete constants, and the very limitations of it have an advantage, when set over against the many variations in nature. Together, they enable the child to solve many problems.

Kindergartners owe a debt of gratitude to Mr. Gregory for his paragraph on p. 30,[1] in which he speaks of Froebel's desire to make the child conscious of his power, but I've no time to consider the justness of it now.

As to the loyalty of the kindergartner to Froebel (p. 34),[1] is it any wonder when a young woman comes into the kindergarten training class and finds what Froebel would open up to childhood—what he opens up to her—that she becomes enthusiastic, that like any novitiate she feels that here is a cure-all for many a misunderstanding of childhood? But more than that: if she is in a school that believes in self-activity she has the joy of making some educational discoveries for herself. Suppose she blunders. Suppose, because the truth now grasped for the first time is large in comparison with her previous experience in school, she overestimates it—even to the point of exploiting it, time and more truth will help her to gain her balance; she will see things in their true relation as she lives and studies longer; she will learn that this kindergarten is but the first step on the ladder, that is to take her up from "God's earth to God's heaven," as Froebel puts it. It can only do its own work in its own way. I can't quite agree with Mr. Gregory in thinking that the kindergarten will ever pass away. It stands for a unique purpose—in a unique phase of child life—the presentation of conditions for the nourishment of the germs of thought, feeling, and will—the pathway from subconsciousness to the conscious growth; and this process is worthy of a name of its own. There will always be some people who take a special interest in this stage. These will be drawn to specialize in this field, but they will realize that, to understand it, they must know what has gone before, must know the home environment, as well as that which will come later—the school.

When a sapling is transplanted from its nursery to a new field, there is not, at first, much sign of growth. The adjusting itself to its new soil goes on underground—and the more it is let alone the better, provided it have such light, air, and water as is necessary.

I can't help thinking that the constant talk of the break between kindergarten and school acts as suggestions are likely to act. If each teacher who feels that all is not as it should be would talk less about it and work diligently to see that right principles are everywhere applied—if she would put some of her traditions into a good hot crematory, reduce them to ashes, and use these to fertilize the soil for both kindergarten and elementary school, the closing sentence of Mr. Gregory's fine paper would indeed be realized.

Meantime let teachers of the grades, especially the first, second, and third, come together and compare notes as to what has been done and what can be done to work economically and harmoniously as well as progressively.

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[1] *Seventh Yearbook* of the National Society for the Scientific Study of Education, Part II.

To this end I have brought a schedule which was prepared by a group of Chicago kindergartens—not at all as a formulated statement of what had been done but as a sort of chart to keep them sane and steady and definite as to their purpose.

Years ago I had a somewhat similar leaflet which I always passed up to the first-grade teacher when the kindergarten children entered. Mine was a little more definite, for I told what stories, songs, and games the children had had; something of the construction work we had done, giving our aim in each case, and something of the methods by which we reached it; what blocks we had used; what grains and seeds we had planted or played with and what forms the child had a living or a playing acquaintance with. Do not misunderstand this—it was not that any finals had been reached—but it seemed only fair to the child and the teacher to let her know something of where the children stood as to general intelligence, habit, physical condition.

Elizabeth Harrison, Chicago Kindergarten College.—Superintendent Gregory seems to have grasped so clearly the distinctive difference between the kindergarten and the kindergarten principles which underlie all development that his paper scarcely needs discussion. Yet I would like to emphasize one or two points. He speaks of "the divine fire" which animates the kindergartner and devoutly wishes it could be had by the grade teacher as well. Here is a thought for us kindergartners. If we had enough of this divine fire we would transmit it. It is as contagious as any other fire. Show me the kindergarten teacher who realizes the sacredness of her work and the divine significance of education, that it is not merely the giving of knowledge, but awakening and development of "personality"— show me this kind of a kindergartner and I will show you the kindergartner who has awakened and inspired her next-room neighbor to better work. Are we as kindergartners, who have been trained in insight, living so that this fire within us warms and gives light to those who are near us?

The second point of which I would like to speak is Dr. Gregory's praise of the law of "self-activity" which he wishes the grade teacher understood better. Here is another point for us to consider. Are we sure that our daily work with the kindergarten children can always be called by that name? Do we fully understand the meaning of the word self-activity? It is not indulging the child in his caprice, nor wasting his time in trivialities. Unless it helps him to unfold within himself something that is worth while it is not true self-activity. If we could show the primary teacher results that manifested creative power in our children, even in its simplest forms, we would not need to argue against cut-and-dried methods. The wonderful growth which the lower grades have made in the past few years shows that the earnest primary teacher is just as anxious to improve as the average kindergartner.

There is one point on which I think Dr. Gregory is not just to us. He speaks of our using the third gift, for instance, because it was Froebel's expression of a great idea. We do not use it because it was Froebel's invention but because it is a simple, easy means of bringing to the child contrast of size, relationship of number, a unit of measurement, the three directions of up and down, right and left, top and bottom, and shows in a very concrete way the dependence of parts on the whole and a whole on its parts. These same things are illustrated in a morning program in a dozen other ways. We use the kindergarten tools just as any other intelligent worker uses his tools—because they serve our purpose, not because they were invented by some one individual. And I hope we are broad-minded enough to use better tools if better tools are invented. But a sensible workman does not throw away a good tool because somebody advertises that he has made an invention of something else. New tools do not make skilled workmen any more than old tools. The test is, "Does this or that tool do the work desired?"

Emma C. Davis, Cleveland, O.—In response to the request of the chairman I will speak first as to the continuity of the training carried forward in the grades by means of the materials used in the kindergarten, altho there is another point of greater importance I wish to touch upon.

My experience is that in up-to-date school systems nearly all, if not all, of the materials used in kindergarten "occupations" are used in the primary grades, either in the art and manual-training courses or in the "expression-by-hand" activities and exercises, or frequently in both.

That a definitely outlined course of training beginning in the kindergarten "occupations" and going on thru the grades is not more common is due to the fact that in very few, if any, cities the number of kindergartens is equal or anywhere near equal to the number of first grades, and therefore a definitely outlined progressive course which is feasible where these ideal conditions prevail is not usual. But notwithstanding the conditions as they are there is an encouraging degree of continuity and progression in the work as it is now carried on, and this is becoming more pronounced as the organization of public kindergartens becomes perfected and more truly a part of the system of schools. And by this I do not mean that the kindergarten work needs to be organized; it is already splendidly organized, perhaps even too perfectly.

This leads me to the second point I wish to speak upon, the relation of the kindergarten to the grades above.

I have been surprised to hear recently so much about definite attainments in the kindergarten in the way of number work, and even in the elements of reading and in other definite measurable attainments. That the children's number sense is trained and that their perceptions take definite form is true; that their ears are trained to the recognition of differentiations in sounds is also a fact; that the ideas of space and dimensions are developed is without doubt. But it seems to me that a required standard of measurement for such training would be fatal to the best work of the kindergarten. The children who come out of the kindergarten do not, under present conditions of organization, make their way thru the grades any faster, usually, but they bring to the work trained intelligence and the social spirit, developed senses, skill of hand expression as well as of language expression—all of which enables them to do the work better, to realize a richer content, and to have more joy in the work. If the kindergarten accomplishes this, it seems to me it has filled its niche—has accomplished a splendid mission.

ALMA L. BINZEL, director of kindergarten training, Stout Institute, Menomonie, Wis.—I shall confine myself to the actual attempts we are making to solve this problem in the training schools in Wisconsin. The kindergarten departments of the Milwaukee State Normal School and of the Stout Institute at Menomonie had their origin in an effort to meet demands for kindergarten teachers; their development is accompanied by a growing recognition of the following facts: First, that an insight into theory, methods, and subject-matter of elementary grades is essential to the doing of the most intelligent work in the kindergartens by the teacher thereof; second, that requests from small cities for teachers prepared to do both kindergarten and elementary work are frequent; third, that demand for elementary teachers with some kindergarten training and experience is on the increase; and fourth, that effectiveness and economy are dependent, in many cases, upon finding the particular phase of work with young children for which prospective teachers are specially adapted.

Appreciation of these facts has resulted in the modification of courses to such an extent that the requirements for elementary teaching are being met. Two years ago the state legislature acted upon the matter so that today the graduates of the kindergarten departments are recognized as qualified to teach not only in kindergartens but also in first, second, and third grades.

By the elimination of some of the phases of the traditional kindergarten work it has been found possible to give a course in pedagogics involving consideration of the laws of teaching, of the subject-matter, and of the methods of primary work. This is followed up by actual teaching in the grades. Eighty forty-minute periods are allotted to this, whereas three times that amount is devoted to kindergarten teaching. For the coming year a reversal will be made for those choosing the elementary as their field.

A two-year's trial has convinced us that this plan is not only desirable but also worth while. It so happened that the woman who was responsible for the work along elementary lines at Stout Institute had never before dealt with a group of student teachers with kindergarten training. Her experience had been, however, a very extensive one with normal-school students for she was for many years supervisor of the model department and practice teaching, instructor in methods at a state normal school, and hence the following comment is of special interest and value: "I have never had a group of teachers take hold as readily, do effective work as early, appreciate so thoroly the basis of criticism as these kindergarten students. It is no doubt due to the fact that the various courses given to prospective kindergartners prepare them to see and understand the child in his many relationships, with his many needs and interests, in a way that is not equaled by the usual work in other departments of normal school."[1]

On the other hand, the kindergarten critic teachers feel justified in saying that work with kindergarten children is stronger because there is knowledge of next steps; because there is greater clearness, concerning whys and wherefores, that comes through restatement and reapplication of fundamental laws to more than one phase of teaching.

Not that we have reached our goal in the unification of courses and in the attainment of the consequent economy for adults and for children but we are studying the problem and approximating toward a sane solution, we hope.

In such an attempt every criticism made by grade teacher or supervisor must be welcomed and acted upon. For instance, when the supervisor reports that the art work of children in a certain building does not come to standard for first grades and that the class teacher maintains that the drawing habits fixed in the kindergarten are responsible then this question must be answered: Does the supervisor of drawing, who by the way is frequently the teacher of art to junior kindergarten students, concern herself only with their development of power and skill in execution, or does she deal with the pedagogy of the subject so that as seniors and teachers these students understand the work with young children? If the specialists fail to concern themselves with beginnings that are made in the home and utilized in the kindergarten the continuity must be a matter of accident. Lack of articulation would be frequent where conscious design is not present; herein lies the waste and misdirection of student and child, energy and time.

Upon kindergarten and grade teachers, upon supervisors and specialists, devolves the obligation of seeing that articulations in conditionings characterize the environment of the child so that the continuity of and progress in his development is insured. To welcome criticisms, to discover their causes, and then to remove them, this is the only attitude that we as teachers of children can afford to cultivate.

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[1] For statement of work given and elaboration of views held see *Stout Institute Bulletin*, No. 3, Vol. III: "Advantages of Unifying Training Courses for Kindergarten and Primary Teachers" by Mary D. Bradford, supervisor of elementary work.

DEPARTMENT OF ELEMENTARY EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—J. K. Stableton, superintendent of schools, Bloomington, Ill.
Vice-President—Miss Adelaide S. Baylor, superintendent of schools, Wabash, Ind.
Secretary—Miss S. Belle Chamberlain, state superintendent of public instruction, Boise, Idaho.

FIRST SESSION.—Tuesday Afternoon, June 30, 1908

The department met in the First Methodist Church at 2:30, the president of the department, J. K. Stableton, presiding. George P. Brown, editor of *School and Home Education*, Bloomington, Ill., spoke on "The Physiology and Psychology of Elementary Education."

The discussion was opened by John W. Cook, president of Northern Illinois State Normal School, DeKalb, Ill., and continued by Ella Flagg Young, principal of Chicago Normal School, Chicago, Ill., and Elizabeth Harrison, principal of Chicago Kindergarten College.

The second paper of the afternoon was presented by James H. Van Sickle, superintendent of schools, Baltimore, Md., on the subject "Is the Technique of Reading, Arithmetic, and Writing Receiving due Attention in the Elementary Schools Today?"

The paper was discussed by W. C. Martindale, superintendent of schools, Detroit, Mich., and P. M. Harbold, superintendent of training department, State Normal School, Millersville, Pa.

The subject was thrown open for general discussion.

Upon motion, the president appointed the following committee on nominations:

Duncan Mackinnon, San Diego, Cal.
Charles H. Keyes, Hartford, Conn.
T. A. Mott, Richmond, Ind.

Wednesday Morning, July 1, 1908

A joint session with the Kindergarten and Art Departments was held. For minutes of the meeting see Department of Kindergarten Education.

Thursday Evening, July 2, 1908

The Department met in the First Methodist Church, and was called to order by the president, J. K. Stableton.

The report of the committee on nominations was as follows:

For *President*—James F. Chamberlain, State Normal School, Los Angeles, Cal.
For *Vice-President*—Miss Adelaide S. Baylor, superintendent of schools, Wabash, Ind.
For *Secretary*—Miss Margaret McConkey, supervisor of primary schools and kindergartens, Springfield, Mass.

The report of this committee was on motion unanimously adopted and the nominees declared elected.

R. R. Reeder, superintendent of the orphanage, Hastings-on-Hudson, N. Y., presented a paper on "Moral Training an Essential Factor in Elementary-School Work."

Fassett A. Cotton, state superintendent of schools of Indiana, being absent, his paper in discussion was read by Laurence Duncan, assistant state superintendent of Indiana.

The second paper of the evening was "Mathematics in the Elementary Grades" presented by Robert J. Aley, professor of mathematics, Indiana State University, Bloomington, Ind.

The discussion was opened by I. C. McNeill, superintendent of schools, Memphis, Tenn.

The department adjourned.

S. Belle Chamberlain, *Secretary.*

PAPERS AND DISCUSSIONS

THE PHYSIOLOGY AND PSYCHOLOGY OF ELEMENTARY EDUCATION

GEORGE P. BROWN, EDITOR, "SCHOOL AND HOME EDUCATION"
BLOOMINGTON, ILL.

In the first paragraph of his "Essay on History" Emerson says:

> There is one mind common to all individual men. Every man is an inlet to the same and to all of the same. He that is once admitted to the right of reason is made a freeman of the whole estate. . . . Who hath access to this universal mind is a party to all that is or can be done, for this is the only and sovereign agent.

Taking Emerson's statements as our point of view, education may be defined as the process by which one obtains admittance to the right of reason, and so gains access to this universal mind and becomes a party to all that is or can be done.

Elementary education is that state of this process which conducts the growth of the child from the dawn of his intelligence through his preparation for entering a secondary school.

That part of this elementary process which we call the elementary school seeks to prepare its graduates to begin to learn some industrial vocation; or to enter a high school for a more advanced training in power and scholarship than is needed as a preparation for beginning to learn a strictly industrial pursuit. The elementary pupil cannot gain admittance to the right of reason; he can only make the preliminary approaches to such admittance. The primary duty of the elementary teacher is to gain a clear conception of what is the best preparation the child can make for this next stage of his education.

The two classes of powers that constitute the child are the physical and the psychic. They make the body and the mind. We have come to understand better than formerly the interaction of these powers, and the bearing of this knowledge upon education is better appreciated. Modern investigations in both physiology and psychology have revealed a new child to the school teacher.

The physiological processes in man are similar in kind to those of the lower kingdoms of life. Education from the physical point of view is concerned chiefly with the nervous system of this animal inheritance. and especially it is concerned with the gray matter of his system.

The psychic processes are those of the psyche or person who is the new being that has emerged at this human stage of the evolution of life, and who uses the nervous system of the body for attaining his ends.

The doctrine of this thesis is that the body as nervous system is the servant or instrument of the person or self, and, therefore, it denies that the body is the source or creator of this new being. The full extent to which the person may become master of this machine—may come into control of this servant—doth not yet appear. The body, in and of itself, is but an animated machine—a living automaton—which accumulates and transmits energy according to physical laws.

The life process of this mechanism animates the system of afferent-efferent, or sensory-motor cycles that constitute the nervous system. Each of these cycles, as you know, consists of a sensory nerve filament, a central cell, and a motor filament. These filaments I understand to be simply the prolongation of the gray matter of the cell. When the stimulus from the environment external to the cycle attacks the receiving end of the sensory filament it is transmitted to the central cell which directs its course through the efferent or motor filament or filaments to the muscles or other tissues upon which it operates. The purpose of the cycle is to transfer the stimulus received from without the cycle from one point in the organism to another.

Now the entire complex of processes which make the nervous system is the co-ordination of many thousands of these afferent-efferent cycles which move with the precision of the shuttle in the power loom. This system of nerve cycles is a harp of thousands of strings, which, when played upon by the environment, gives always the same music to the same stimulus.

I speak of this to remind you of the mechanical nature of the processes of the human body, which body is the instrument of the soul.

Now the person who uses this mechanism is quite another being. In the infant stage of its growth this person is spontaneous and lawless free power, which must attain to ordered freedom thru education. When this power first comes to consciousness it is will-as-desire, or desire-as-will, and this is the infant personality or ego. This free power is what eventually grows into the educated man or woman thru the acquisition and use of knowledge in attaining its freedom. By freedom I mean the liberty and power to do as one desires within the limits imposed by the common mind. No will can be free that does not will the freedom of all.

How can the elementary school best lead, thru the influence of its environment, this free, lawless power on its way toward freedom in our social order? I take it that this is our fundamental problem in the elementary school.

Emerson says the "secret of education lies in respecting the pupil." Free-will is the spark of divinity within the child. His free-will best comes to respect the free-will of others thru the respect of others for his free-will.

The need of better results from the schools, especially in character and power, is universally felt, and there has been, in consequence, much advertising of new educational routes. Just now the industrial line is much in evidence. It is certainly true that the process of putting ideas into material forms in obedience to mechanical laws affords an opportunity for respecting the free-will of the pupil in his growth toward freedom, superior to that of "backing-the-book," with which it is often contrasted. But the emancipation that comes thru industrial education does not reach very far. There are some of these devices, such as industrial education, manual training, domestic science, and others, which ought to be in the tool-chest of our old reliable educational route, to be used upon occasion, but none of them can be a highway from lawless free-will to rational freedom.

The goal of education, since man began to think, has been the free use of opportunity under the law imposed by the common mind. Every individual in this country is a party to the laws imposed by the common mind. Hence such common law is self-imposed by each individual. "Man thus becomes a law unto himself," which good authority declares is ideal freedom. I believe this definition of freedom holds good whether one is a rationalist or a pragmatist in his philosophy.

The first and most commanding duty of the elementary school is to bring the infant psyche—which is will-as-desire—into control over the physical instrument which he must use in his rise to manhood, and which he must live with and keep in order while an inhabitant of this planet. This psyche must rise to manhood thru (that is, by means of) the acquisition of knowledge; for knowledge is necessary to its attainment of its ends. Knowledge is embodied in words or other symbols, therefore oral and written speech have always been the leading subjects of study in elementary schools. The personality, or psyche, this will-as-desire, not only creates the words and other signs that symbolize his knowledge, but he registers them in certain convolutions in one of the hemispheres of the brain—generally the left hemisphere. He does the same thing with his music, his arithmetic, and all other symbols of ideas and other psychic experiences. These must be ready for use when the personality calls for them. These brain convolutions are practically the same in the brain of the chimpanzee as in man, but the chimpanzee can make no use of them for the chimpanzee is not a person. Only a person can create speech and store it away in the brain.

The chimpanzee is a system of motor-cycles played upon by its environment; it is an animated machine. Man is all this and more. What he is more is personality—a free psychic force who plays upon these cycles for his own ends. The conflict between man and the beast thus begins in the child. Whether a worse than beast or a man shall be the final outcome, in our present social order, the elementary school can do much to determine.

When the psyche rises in desires and in purposes as it advances in knowledge then the instincts belonging to the beast come by degrees into subjection to the higher ideals of the man, and a moral being is the product.

The process by which the mind grows in ideals and aims is similar to that of its growth in knowledge; that is, it grows by persistent effort and repeated trial. Little progress can be made without language. The psyche has a natural impulse to express himself in symbols by means of hand or tongue. Words first enter as sensations from without and are registered in a well-defined convolution of the brain by psychic power which uses the sensori-motor cycle in doing it. Helen Keller, who was blind and deaf from early infancy, knew not one word when she was seven years old. Miss Sullivan tells the story of the registration of her first word after weeks of effort; how she stood transfigured when she first discovered that a certain succession of strokes made on her hand meant water. From that moment she filled the word register in her brain with marvelous rapidity. In four years she was conversing in oral speech with the most cultured people of the nation, who were astonished at her command of English and range of thought. The wonderful things she must have done in educating the brain cells of her Broca convolution to talk—thru her sense of touch alone—shows the power of the will in bringing the brain machinery under control. Only the neurologist can best appreciate what must take place in the brain to produce this result.

What shall be said of the teaching of certain psychological professors who would have us believe that the action of "the finer anatomy of the central nervous system" made Helen Keller's passion for knowledge, made her indomitable will, and her exalted character? If I could help to keep that deadly error from finding lodgment in your minds, I should feel that I had not lived in vain.

Dickens says in his "Battle of Life" that Dr. Jeddler was a great philosopher and the "heart and mystery of his philosophy was that he looked upon the world as a gigantic practical joke; as something too absurd to be considered seriously by any practical man." Was the doctor a professor of physiological psychology as well as a philosopher?

I can only mention, in passing, such illuminating examples as Helen Keller and Laura Bridgman, hoping that those who have not learned the lesson they teach of the dominance of personality over the sensori-motor mechanism may be encouraged to make a study of the processes by which these persons were educated, and may read such suggestive books as *Brain and Personality*, by Dr. William Hanna Thomson.

The way in which the will registers its knowledge is akin to that in which it registers its ideals and purposes and thought—the process by which it grows. It is by the growing experiences of the personality resulting from persistent repetition and study that the soul develops.

I have opportunity to give only this single illustration of the interaction between the nervous system and the personality in the growth of the soul. The rest of my time will be given to speaking of the psychology of elementary education.

There is a psychology common to all individual children, and a somewhat different psychology of different groups of children, but the most important to child and teacher is the psychology of the individual child.

That which is common to all seems to be this, that what children desire they are impelled to obtain, and they seek some way of obtaining it. Involved in the movement are the desire that reaches toward some object, the will that executes or appropriates, and the intelligence that directs the execution; and they act in this order in the evolution of the race and of the individual.

This suggests the psychic cycle by which the personality approaches its self-realization in early years. This, it seems to me, is a psychological experience common to all children, and to men and women, most of whom, in this regard, are but grown-up children.

The impulse to do the agreeable thing and reject the disagreeable is the law of the infant will, and this remains true until he arrives at the "age of reason." When the primary school requires of the child to do the disagreeable and reject the agreeable, the natural order of growth is not followed. This reversal of the order of nature may be temporarily necessary in some mental attitudes of the child, but only in so far as to secure the change of attitude.

The child's voluntary efforts are determined by his desires, except in so far as these desires are inhibited by influences external to himself. These inhibitions can be made more educative than they are, and they are an important part of the process.

I have no time or space in three thousand words to describe the steps by which, in the primary grades, the child is led to construct for himself a body of language and of meanings and register them in the brain, nor to show how the child's imagination can be used in perfecting his language and—what is more important—in filling the mind with a registration of beautiful deeds, and noble ideals, and loving sympathy for what is good and true and just in life.

The elementary school is the school *par excellence* for laying the foundations of character. The impulses of will, desire, and interest that clamor for satisfaction are a wild, free power which must be led to subject itself to order. The best school is the environment that stimulates interest and joy in doing educative things. The philosophy, religion, and ethics of the human race have always taught, and the history of the world confirms it, that the human soul has from the beginning more and stronger impulses and desires that lead toward love, and truth, and righteousness than of those that lead toward selfishness, injustice, and malevolence.

In the child's conflict between his human impulses and his animal inheritances, the teacher finds the human to be the stronger tendencies. There is no access to the child except by way of his environment. The free personality of the child must work itself into order under the influence of the school. The school can perform this function better than the family.

I cannot detail here the steps of the process. There are many ideal schools in our country where they can be observed. It is like the process which Hawthorne describes in the "Great Stone Face" where he tells us what happens to every child in a greater or less measure, when the environment is favorable to the best results.

There is a prevailing notion that the value of a school is in the knowledge the children acquire. An intelligent member of a school board in one of our more enlightened cities declared that he always supposed that the sole business of the school was to impart knowledge. He did not see how the will and feelings could be taught.

It is the purposive free-will that becomes the man or the woman whom the elementary school conducts as child thru the grades. Knowledge has no moral quality. It helps the evil will "who knows better and does worse" as willingly as it works for righteousness and justice. We have a saying that "knowledge is power." Knowledge is the servant of power. I do not know what will be said to those at the final reckoning who are now proclaiming that the supreme duty of the elementary school is to advance scholarship; who say, "Let the other institutions attend to the rest of the boy." But I do know that the boy cannot be taught in sections with the best results.

It is the prevailing weakness of our social order that people disregard their convictions of truth when immoral desires and purposes are uppermost in them. The determined man can make himself believe, or believe that he believes, that the worse is the better when he wishes it to be so. If knowledge were the power which rules the world this could not be true. Socrates made knowledge the commanding virtue, it is true, but he assumed that a man who knew could not be a fool, and do the worse when he knew the better.

I am pleading that the education of the will and the desires of the personality shall be the commanding purpose of education in the consciousness of teacher and parent. It is now, at best, only an incidental purpose in the school.

I am considering the will to be that psychic force, or spiritual unity, that feels and executes and thinks. The school must regard all these aspects of the soul's activity and so distribute the emphasis between them as to promote the supreme purpose of education, which is the moral life. I am not making this the conscious purpose of the child in his work in the school. His conscious purpose is to do the work the school assigns.

Nor am I saying that thought begotten of knowledge does not become identified with power in the best educated man. I am considering the condition of children's minds in the first years of school.

The lines of effort in the elementary school that will best realize our ideal of life are three:

1. It must give such knowledge and train to such thinking as will best direct this uninformed will to the attainment of its ends.

2. It must lead the desires to test the ideals they create by a feeling of the worthiness of the ends toward which they lead.

3. It must persistently practice discovering ways and means of attaining ends which the child deems worthy; and this is what is meant by teaching him to think. He must be ever solving problems.

The school must respect the child's view of life and take that as its point of departure in educating him. The main educational route is toward the goal of a high order of social life. As I have intimated, two ways may lead to this end: one the industrial, the other the scholastic.

But the elementary school I have in mind will afford the best preparation for the pursuit of either of these special ways. The child's natural development should be fostered; it should not be interrupted. It is in this sense that the elementary school is not consciously a preparation for life, but is life. It should turn out the best-developed boys and girls practicable. If, when this is done, the demands of our civilization shall continue to require that we arrest their further development into full grown men and women in order to make of them captains of industry and finance, or of some other specialty, then we must needs wait for a higher stage of the evolution of man for his harmonious and complete education in the school. But it is the duty of education to cry aloud and spare no effort to persuade the people that manhood and womanhood of a high order constitute the power and honor and glory of that nation which shall continue to lead in the civilization of the world.

Whatever is done in the elementary school that is directly related to a special vocation should be done because of its general educational value in any and every vocation, and only so far. It is certainly true that the initial steps in mastering modern industries and occupations are steps toward freedom in any pursuit.

What the world needs is men and women of power. When the schools work for the attainment of results in power which are not measured by per cents., they will produce more persons of power and efficiency. The elementary school is for stimulating and putting into order in the lives of the children worthy feelings and purposes thru the accumulation of knowledge, and thru such practice in the use of knowledge as will mature these feelings and purposes into habits. Habits should be the stepping-stones of dead selves to higher things, and never to lower things.

We should be concerned vastly more about the aims and ideals of the children. This concern will result in making the need of knowledge more and more evident to the pupils, and will turn their will and desire toward its mastery. It is thus that the school will follow the natural order of the growth of the child and of the race.

How inadequate is the conception that the commanding purpose of the elementary school is to construct the instrument by which desires are to be realized, and leave to chance the choice of ends, or the worthiness of the desires.

The natural order of growth, I repeat, is first a desire for some experience and an impulse to attain it; second, putting order into impulse and desire by the use of knowledge; in other words, it is will prompted by feelings and directed in its achievement by knowledge.

I have only entered upon the threshold of the consideration of one psychological element that belongs to the work of the school, but what has been said will suggest the order in which the other elements must follow.

I have tried to emphasize the source of power and the general process by which power becomes developed and effective. What I have in mind to say of the auxiliary processes that become active at different stages of the child's growth, and of the agencies and instruments to be used to make this power most effective in the social order would fill a volume.

DISCUSSION

JOHN W. COOK, DeKalb, Ill.—An analysis of this interesting paper discloses the following body of doctrine: (1) Mind is the common possession of all men, hence all of its possible ranges are open to each within the limits of his individual capacity. (2) Education is the process of realizing in each individual the largest possible embodiment of the common mind. (3) The highest manifestation of this embodied mind is a moral personality. (4) A moral personality is a being that has become conscious in some good degree of certain things with regard to itself: (*a*) Of its participation in the common mind. (*b*) Of its consequent identification with an established spiritual order organized by the energy of universal law. (*c*) Of the possibility of that free self-control in conduct which is the explanation and meaning of the existence of desire. (*d*) Of the necessity of conformity to the organic law in the case in order to realize the free self-control which is the end of desire. (*e*) That it has favored the survival of desires that are in harmony with this necessity.

I submit the following rather formal propositions as at least applicable to the argument with no claim that they are either original or new.

1. A distinction should be made between training and education. It suits my purposes better to limit the application of the latter term to those processes in which the pupil has a somewhat definite conception of what is happening to himself and in which he is disposed to lend a hand in furthering the realization of ends that begin to be explicitly seen. Whatever of a purposeful disciplinary character precedes such a consciousness I prefer to call training. In this discussion, therefore, we are engaged in the consideration of what the teacher should do for the child that the child would desire to have done for him if he knew himself, and that the youth will approve when he discovers what has been going on.

2. The consciousness of being a moral personality cannot be reached within the limits of elementary education. It is because of this delayed insight that elementary education is of such enormous importance. The teacher must represent that introspective attitude which the child has not yet developed. If he fails to have the highest respect for what he finds in the child the case is parallel to that in which one who has come to know himself finds nothing within himself that merits his respect. To such a being the moral world has suffered collapse, for all sense of worth has its basis in a feeling of personal worth. It is within this area of spiritual experience that the real tragedies of human life are enacted. A teacher who is lacking in this attitude toward his work should be cast out of the temple which his presence desecrates. Emerson's remark, that "the secret of education lies in respecting the pupil" is another of the many illustrations of his wonderful insight.

3. The relative values of knowledge and habit during the period in which the ministry of the teacher is training rather than education is a theme that may well engage our most careful consideration. By knowledge is here meant the mental creation of what is ordinarily thought of as truth, in its various aspects. By habit is meant the organization of automatic reactions to substantially identical stimulations. Habit must take marked precedence, but with a diminishing preference thruout this whole period.

4. The direction of habit-forming activities is a most delicate task. Habit is the vanishing-point of education. While all education must eventuate in habit, the formation of a habit arrests education at that point, or, perhaps I should say, completes education

at that point. To organize one into one environment and thus to render him immune to another presents at the same time benign and malignant features. And here is where imminent peril lies.

5. The antidote to the arresting tendency of habit is growth in knowledge. Growth in knowledge implies the acquisition of an acquaintance with new objects and ideas and with new aspects of old objects and ideas. We have been so much impressed with the significance of the doctrine of apperception that we have lost sight, at least partially, of its complementary doctrine of estrangement. It must never be forgotten that growth in knowledge necessitates the invasion of new and strange fields. This is hostile to the essential conception of habit. But, like the chambered nautilus, we must move into the new and larger house; yet, unlike the chambered nautilus, we ought not to seal up the old.

6. Growth in knowledge contributes to the formation of that moral personality which is implicit in freedom in at least two ways: (*a*) The method of acquiring knowledge is the solution of intellectual problems. The problem-solving activity is peculiarly the method by which the intellect grows, and intellectual growth is essential to the development of any worthy personality. (*b*) Without knowledge man is the mere shuttlecock of circumstance. There is no real will in its absence. Impulse implies it, desire begins its definition, reason comprehends it, will incorporates it into the character. Mere intellectual apprehension is of small consequence in the concrete life of a personality. Knowledge in the elementary school is for the same purpose that it is anywhere else; it is for conduct, for guidance, for fulfilling the destiny of a being who becomes really human just so far as he shares in the reason common to all men. Its value may be justly estimated by the will that it awakens and mediates. To do things one must desire things, know things, and will things.

ELIZABETH HARRISON, Chicago Kindergarten College—In the inrush of new thought that has come to us in the realization that our problems in education are necessarily changing as our civilization changes, it is refreshing to listen to a paper which insists so clearly in defining the ultimate aim of all education to be the development of the personality of the individual child. The greater the personality or soul or ego of any individual, the greater is that individual's power, and the greater the power the greater the possibility of "social service." Unless some such idea is held steadily in view one is apt to think that art or manual training or physical culture or some means to an end is the all-important thing in education. When, as Mr. Brown's paper so admirably shows, we comprehend that feeling, or desire, as he chooses to call it, to stimulate the will-activity to voluntary activity, and when that knowledge or thought guides this will-activity to efficiency, we begin to adjust our curricula, and avoid undue emphasis on any one factor of development.

I wish to speak this afternoon on the danger of our forgetting the value of training the imagination of the child, as the source of all volitional activity. In our present-day enthusiasm over the physical training of the child's body, and his industrial training toward social independence, we are apt to overlook the fact that both of these receive their real value from the personality, so to speak, which is housed within that body, or which is at work in that same body applied to some form of bread winning. We need strong personality more than we need strong bodies or able financiers, valuable as these are when ruled by the right kind of a spirit within. It is this inner life which is the source of all outer power and success worthy of the name.

In speaking of language as the largest and most spiritual of the child's instrumentalities, Mr. Brown adds "What is more important than all else in this matter is to what use the child's imagination can be applied, not only in perfecting his language, but filling the mind with pictures of beautiful deeds and noble ideals and sympathies, with that which is good and true and best in the image world which his will constructs."

Are we giving enough time and attention to the right training of the imagination? All art, all literature, and all religion are products of the power of the mind to see the unseen; to establish a relationship between the finite and the infinite.

In fact all that is highest and best in the attainments of our race are the results of the power to image something better, larger, more beautiful, than exists in the realm of external experience. We realize the immense importance of training the creative power which results from a trained imagination, properly developed. We either ignore this poetic creative side of education, or we train it in a haphazard or oftentimes pernicious way. As for example the recent craze over dramatic presentation of such heroes as Robin Hood, arousing in the child of today the spirit of ruffianism. Is it not as important that we consider what kind of stories we tell to children, what reading we put into their leisure hours, what poems we teach them to love, what pictures we hang on our school-room walls, as that we consider what folk-dances they shall learn or what handwork shall be introduced, or what household activities they shall share in? I am not decrying rythmic training of the body, nor clever skill of the hands, but let these take their proper place as instruments to be used by the creative imagination, that the world may grow richer and better in its inner life as well as in its outer material prosperity.

IS THE TECHNIQUE OF READING, ARITHMETIC, AND WRITING RECEIVING DUE ATTENTION IN THE ELEMENTARY SCHOOLS TODAY?

J. H. VAN SICKLE, SUPERINTENDENT OF SCHOOLS, BALTIMORE, MD.

READING

If the discussion of the technique of reading is to get its trend from the common definition, "the method of performance or manipulation in any art," it would at first thought appear necessary to limit it to oral reading. Technique, however, plays so important a part in getting thought from the printed page, consciously in the early school years, unconsciously later, that we are fully justified in considering technique even in silent reading.

The conclusion of the Committee of Fifteen, that "learning to read and write should be the leading study of the pupil in his first four years of school" undoubtedly stated a belief very general at the time the report was written, and one which is in a sense valid today; but competent authorities are not wanting at the present time who would change the emphasis, even in the first lessons, from "learning to read" to "reading to learn;" and from "learning to write," "to writing for the purpose of making a record." This change of emphasis is very noticeable in courses of study that have been revised in the last few years; it is so marked as to be almost revolutionary. It is also in evidence in all the newer series of readers.

The difference between the two points of view, though apparently a difference chiefly in statement, has in fact an important bearing both on method and subject matter. The former attitude emphasizes the technique of reading but fails to suggest present use of reading to the learner or to reckon with motives which make an appeal to him while he is acquiring technique. In the recent courses of study and in the newer method, readers' motives from the child's standpoint are prominent. These are: to get meanings, to give information, to give pleasure.

Now-a-days formal considerations, such as pauses and inflections, are passed over lightly. We also expect children to use many words that they do not yet know how to spell. We are seeking short cuts to the fullest possible use of reading as a means of getting information. In these days when men of all occupations and little leisure read the newspapers each morning, reading is no longer an accomplishment for the few, an end in itself. It is only a means to a practical end; so the most direct method must be sought to master the reading process. Hence in our schools, introduction to reading by way of the spelling-book and the building up of new words, letter by letter, has disappeared. After a small stock of sentences and words has been acquired there follows an analysis of words into their elements. The old order was elements first—then combination. The new procedure reverses this order; but while it defers analysis it does not ignore this important step. The danger is that the step of analysis will be neglected, and little power be developed to attack unknown combinations. When analysis is neglected we have bad spelling because children are not trained to observe the elements of words. The older method—that of the alphabet, syllable, and spelling-book—moved less directly toward meanings, but by its very nature secured power in word recognition. When, however, analysis is given suitable attention the prevailing methods secure better technique than the more formal ones because they appeal to the need for expression, thus working in co-operation with child nature rather than against it. As this truth has become plain to teachers we have seen the close of an era devoted to the advocacy of so-called synthetic and other formal methods in which technique for technique's sake was deemed more important than technique for thought's sake; but we have not yet seen the end of the practice of such formalism. Practice lags far behind theory partly because of the disinclination of conservative teachers to change their accustomed ways and partly because the new ways unquestionably involve greater labor on the part of teachers of beginners.

Our foremost schools of education hold that reading should not be taught as a formal end in itself, and that the child's reading vocabulary should grow mainly from his daily varying and developing needs of self-expression in the social activities of the school. If the teaching of reading and writing is to avoid the formal method of drill, the two arts will be taught together and the first reading will be of script which the children and teacher produce; for thus only may the fresh interest and the motive for good form in writing and ready and fluent expression be secured. The ideal would be for each child to write the sentence which he will immediately or later read—in other words to make his own reading-book. Each book would be different from every other book. The group story scheme, now quite common, falls somewhat short of this in that the resulting sentences are a composite of all the individual contributions and the resulting collection of sentences is no child's own. At a later stage phonetic drill is resorted to for voice training and pronunciation, but it is relegated to a separate period and is treated as preparatory for reading. It is when the child does not know a word that the teacher takes him into the mechanics of reading; but she does not mix technique and interpretation. Here lies the chief difference between the old methods and the new. Use of the book is deferred until the children can read. From the first they are led to regard the page as containing a story, and they read to get the story.

This attitude of mind which is cultivated so successfully by our best primary teachers is not utilized to as good advantage in the intermediate and grammar grades. It must be admitted that in many instances the early promise of intelligent and intelligible reading is not fully kept up. This is chargeable to a faulty ideal of the recitation. How seldom do we see children trained to listen to the recitation of their classmates with any real purpose of learning therefrom. In studying their lessons they know that each classmate has access to the same items of information. If at the reading period each has before him the very words to be uttered by the reader, there is no real audience for inspiration—no adequate motive for effective expression. It matters little whether the reader is even heard by his mates. One obvious remedy for lack of technique here lies in so arranging the oral reading that there shall be a real audience to inspire and to be inspired. Effective silent reading such as is necessary in studying geography and history would be forwarded by furnishing a variety of textbooks, by emphasizing the use of books of reference, and by readjusting the plan of study and recitation so as to furnish adequate motive for getting information from the printed page. For instance, let the assigned lesson be a topic which the pupils are to report upon from all available sources of information. See to it that these sources are not the same for all pupils in the class, and the opportunity to make a real contribution to the recitation furnishes a motive for effective preparation thru silent reading which is absent when all study the same paragraphs from the same book. The necessity also exists for attending to the recitation of others since all are held for all that is presented. Moreover, the reciting pupil has a motive for clear statement since he must make all understand his contribution to the lesson.

WRITING

What is handwriting? Clearly a means to an end. What is the end sought? It is manifestly the conveying of thought by written symbols so that it may be readily understood. Handwriting is not now, nor was it ever, a fine art. It is a mechanical device. It is obviously true that one should speak so that he may be understood. He must convey thought by means of the voice so that his auditor may not have to guess at what he intends to say. One should convey thought by means of the written sign so that one may not have to guess what the writer means to say. The hand must therefore be legible. It is not of first importance that it be fast. Beauty is not of importance. It is of supreme importance that handwriting shall be so distinct, so readable, so sure, that nobody may mistake the intention of the writer.

In teaching writing, the aim is to have the process become automatic as early as possible so that attention need not be given to the movement, but may be free to follow the thought. At first the form must be studied and the mind must be fixed upon the process. In fixing the technique of writing the things of vital importance are the position of paper on the desk and bodily posture conducive to the greatest ease in writing. Proper holding of the pen and proper movement are more important considerations than the particular style of letter which may be in favor at any given time. The supreme importance of early cultivation of life habits should be regarded here. The position of the paper on the desk and the position of the writer determine the angle of the writing: If less attention were paid to the slope of the letters and more to securing correct position, practice in movement, and correct habits in writing, better ultimate results would be obtained. But satisfactory technique does not require that all children should use the same letter forms or the same slant or hold the pen and paper in the same position. Individuality is to be considered in it all. It is, however, in the interest of economy of effort, both in teaching and learning, in these early years when children have so much to acquire of the formal side of all studies, that the letter forms adopted in writing shall be as nearly as possible like the printed forms they will see in their reading books. Vertical forms are therefore to be commended in beginning writing. Any slight change of angle that may be natural to the individual or that may later be required is so simple and so easily made that it is unnecessary to force the primary school to depart from a style of writing that is so natural and so easily learned.

In former times children were often taught to make print letters before attempting script; but the script of those days was the difficult Spencerian script which had little resemblance to the print of the book, and learning it after print was to the child almost like learning a second language. The labor of learning to write has been greatly reduced by the adoption of simple letter forms. It is my conviction that in places where these forms have had reasonable permanence and where careful attention has been given to teaching penmanship in the first five elementary grades, the results are fairly good thruout—far better than they have ever been before. In Baltimore this is conclusively shown by comparing the manuscript work of pupils in our eighth grade with that of pupils of the same age and grade from 1852 to 1889. We have bound volumes of examination papers which were written by pupils who wished to enter the high schools in each of those thirty-seven years. These volumes furnish indisputable evidence that the writing of grammar grade pupils was far less legible than the writing of present-day pupils of the same age.

Doubtless greater expertness could be secured in the penmanship of pupils in the three upper grades if it were made a specialty and if all the teachers in those grades were expert teachers of penmanship; but instead of being a specialty as it may properly be in the school of business, penmanship is a means which the pupil uses toward the larger end of getting educated. If, when he leaves the elementary school, his writing is reasonably rapid, neat, and easy to read, a moderate amount of special practice in penmanship will give his hand the qualities which we admire in the practiced penman. But the elementary school cannot and does not undertake to turn out professional penmen any more than it undertakes to turn out skilled accountants, or artisans of any sort. It does, however, undertake to fit children to write a plain, easily read hand, and I venture to say that it now accomplishes this purpose to a greater degree than ever before. While this is true, it must be admitted that even better results might be obtained if more attention were given to technique in the earlier lessons, particularly in the first and second grades.

Some of the most thoughtful of my associates suggest that in the first grade no penmanship should be permitted except under the immediate direction of the teacher. The custom of allowing children to use penmanship without guidance for so great a portion of time in the second grade tends to fix bad habits more firmly. A fifteen-minute writing period for directed practice is quite insufficient to correct habits fixed by two hours of undirected writing. Forms of seat work requiring less writing should be devised for this grade. Work carefully supervised should be continued thruout the third, fourth, and fifth grades, allowing difficulties to be met progressively. Thereafter systematic speed tests and the rejection of written work carelessly performed should be sufficient to maintain and increase skill. The fact that the dictation speed test in writing is a feature of the civil service examinations should be known by teachers and used to stimulate children to meet the standards of the world.

ARITHMETIC

I do not know exactly what is meant by technique in arithmetic—possibly facility and accuracy in fundamental operations. It may perhaps be said that if we are not now getting the desired technique we are getting at it. Children are to some extent making their own problems, using price lists and actual measurements in connection with school and home occupations. School work in arithmetic is growing more purposeful and to the extent to which the need for thoughtfulness and accuracy is appreciated by the children, we find the necessary drill work undertaken with determination and zest. We are familiar with investigations made some years ago by Dr. Rice, in which it developed that there was little relation between the time devoted to arithmetic and the results obtained. The effort made in the past decade or two to make the teaching of arithmetic more rational has undoubtedly led to improved results. But we still attempt too much. We have eliminated some of the topics that used to appear in the texts, but we have too many left.

The fundamental operations in arithmetic, with a few of their simple applications, are the only ones that pupils in elementary schools have opportunity to employ. After developing these, and fixing their technique by drill, continued use of arithmetic in connection with drawing, manual training, geography, physics, etc., as called for in the quantitative aspect of such studies, will furnish sufficient practice to keep arithmetic a ready tool. But to follow recent tendencies to the extent of making the textbook in arithmetic a compendium of useful information about a variety of industries for the sake of showing the application of arithmetic to them is as time-wasting a scheme as the older plan of filling the book with arithmetical puzzles. The brevity that must of necessity characterize the treatment of an industry in a textbook on arithmetic defeats the informational aim, and the topic as an industry demands greater maturity and larger experience on the part of the pupil than to do the arithmetical computations incident to the study. Either the industrial topic is beyond the comprehension of the children or the operations in arithmetic involved are too easy to bring adequate increase of mathematical knowledge and skill. Arithmetic, like other studies, possesses a unity and continuity of its own which cannot be freely violated without a wasteful scattering of effort. Many opportunities arise for useful correlations between arithmetic and other studies; but when orderly development of a topic in arithmetic is governed by the exigencies of some other subject, we violate the true principle of correlation and fail to secure advance of mathematical power proportional to the time consumed. Says Raymont:

> In giving a lesson or a series of lessons upon any particular topic, the teacher should press into his service allied material that will help toward the completer grasp of the topic under consideration, but should exclude all else.

By ceasing to teach obsolete topics and by following this principle of true correlation we may easily, by the close of the sixth school year, teach all of the arithmetic that our pupils will ever need and give drill enough to insure accuracy.

It would be well for teachers to become familiar with the tests for facility and accuracy which their pupils are likely to be subjected to in the business world. A kind of test with which the boy is not familiar is likely to confuse him and cause him to make errors which he would not make in the schoolroom. For example, boys who are able to write numbers properly from dictation, and add accurately fairly long columns, made many errors when subjected to an addition test by a bank cashier who had advertised for help. The unusual condition which handicapped the applicants was the necessity of holding in the left hand a bundle of checks ranging in amount from more than a million dollars down to thirty-seven cents, while copying on a pad with the right hand the sums represented by each check, and then footing the column, knowing that account was being taken of their speed as well as of their accuracy. In this instance mistakes in placing the figures were far more numerous than in actual adding. The boys were confused by the one element in the test new to them—the manipulation of the checks.

Our pupils can easily meet the business man's demand for accuracy and facility if we will but find out how he makes his tests and then give such tests in our classrooms.

By way of review I would say: As to reading, the most enlightened practice of today in the lower grades is toward early mastery of meanings, accompanied by due attention to technique. It may be questioned whether our grammar-grade teachers are so training their pupils for independent use of books as to enable them to meet the promise of these favorable beginnings.

As to writing: in places where pedagogical considerations have been allowed to govern in the selection and retention of simple and easily made letter forms, the writing of school children is reasonably rapid and far more legible than that which prevailed two decades ago. Improvement is to be sought in the early fixing of correct writing habits.

We begin teaching formal arithmetic too early, and we continue teaching it too long as a separate study. We include too many topics, and in our most recently exploited correlations we waste time on topics that do not lead to increase of mathematical skill. In practice for facility and accuracy we should accustom our pupils to varied tests so that they may not be nonplussed by unusual conditions.

DISCUSSION

W. C. **Martindale**, superintendent of schools, Detroit, Mich.—Early in June I received a communication from the leading speaker, stating that his paper had not yet been outlined and suggesting that I take up the discussion from my own point of view. This statement is made to account for any apparent lack of correlation between the leading paper and the discussion.

Simple as the question seems it is vitally related to the history of the development of elementary education in the United States. Consider for a moment the subject of arithmetic. As a rule our present courses of study have come to us from the past. They originated before the development of secondary schools as a part of local educational endeavor.

When the early grammar schools and the Latin select schools formed the local educational vehicle for preparing students for business and college, the arithmetic taught was embodied in a few elementary principles with a minimum of practice.

Then the elementary school expanded and took over the preparation of the children of the masses for their every-day life. That life in a new and expanding community was dominated by a business or commercial spirit. The old idea of fixing a few arithmetical principles was revolutionized into an endeavor to supply all the kinds of problems required for the conduct of any sort of business. Teachers, somewhat under the force of public opinion, somewhat from their own inclination, made arithmetic the feature of the course, the real reigning "fad."

The development of the graded system helped to keep arithmetic in its place of paramount importance. Standings in arithmetic are gotten at easily and offer a very convenient basis for classification. For a variety of reasons, then, elementary-school courses in arithmetic became gradually swollen until they contained problems of every conceivable sort. Today the usual three-book course, or, to state the fact more explicitly, the ordinary outlined course of study for the elementary school, furnishes more processes than the ordinary registered accountant is able to perform without some thought and study. Is this to be the accepted subject-matter for pupils whose average age is fourteen years when they complete the elementary work? I believe that time may be more profitably employed. However, I do not mean that arithmetic is to be neglected. We cannot afford to neglect it. We are too firmly convinced of its value to the child and the demand for it is too insistent to go unheeded.

I do believe, however, that there should be a readjustment both in prescription and assignment and that something should be left for the continuation and the secondary school.

I believe that the technique of arithmetic is receiving due attention in Detroit. We have done something in the matter of eliminating superfluous material. The necessity for quickness and accuracy in the performance of the four fundamental operations is emphasized. Clear comprehension of principles is required and in certain districts of the city commercial work is provided in the eighth grade. By this means many pupils who would otherwise leave school are retained and even go on to the high schools where they receive the business training they desire and are at the same time subject to the cultural influence of other subjects. I do not believe that the teaching of the technique of arithmetic has been injured by these methods and we cannot afford to neglect the demand for accuracy in arithmetic. Faithfulness in this matter is just as much a part of education and tends as much toward the upbuilding of character as do literary appreciation and skill in the use of English.

A word on the subject or subjects of reading and writing. The discussion today from one standpoint is a direct result of the tendency in recent years to infuse thought and imagination from the very beginning into the processes of learning to read and write. It is not enough that a child shall learn in the first year to recognize and pronounce words. The process should be associated from the beginning with rich content.

If the stories and pictures which delight him and the physical activities which make up his life furnish the inspiration for his first simple reading lessons, these lessons are a medium for thought and imagery and activity from the very beginning. The words are not mere black characters on the page, but open doors into the child's fairyland.

The same thing is true of writing. The tendency today is to teach writing as a branch of language, not as a detached and mechanical thing to be afterward properly related to the larger subject. Instead of beginning with lines and proceeding in a fixed order to words and sentences, children are allowed from the beginning to write words and even short sentences. The writing lesson is based upon the reading lesson.

A skillful teacher will be successful, using the term to indicate mechanical accuracy, with either method. Granting this, there can be no question as to which method is preferable. Any method which inculcates carelessness is bad, but the carelessness where it exists lies usually in the application and not in the method itself.

We are withdrawing the emphasis on technical grammar in the middle elementary grades. We are trying to have children use language rather than dissect it. We are endeavoring to select reading-matter which will appeal to them so strongly that mechanical difficulties will be overcome by means of interest. By training them to write as a means of self-expression, we infuse the breath of life into the mechanical process. By making arithmetic a training of judgment we provide the proper incentive for quickness and accuracy. All of these things tend to make the school attractive rather than repellent to the average child.

The active boy particularly is held in school and does not merely float along until he is old enough to go to work.

P. M. Harbold, superintendent of Model School, State Normal School, Millersville, Pa.—Whatever the trend of advanced educational thought with regard to method in reading, this one thing seems evident in certain sections of the country. In primary work the technique of reading receives at least its due amount of attention. Almost all of the popular methods of reading used today devote much time, particularly during the first year, to the mechanics of the process. Upon the examination of the pedagogical literature extant one must conclude that, in intermediate grades almost no emphasis is laid on technique and, in grammar grades, literature, as such, claims all attention in the reading class. The end and aim in reading in any grade, it seems to me, should be that which makes for the sanest unfolding of the child's powers, that which gives him mental discipline, and, at the same time, that which has in it the element of interest.

It is a well-known fact that the elementary school is the people's school, and that a comparatively small proportion of the children ever enter secondary schools. The large majority of our good middle class must go out into the world without that culture and power which training in the secondary schools and colleges must give. This fact argues for this thought: Whatever else the elementary school aims to develop in the child who has small chance of higher education, it should aim to develop all the capabilities in the child which an elementary education can develop. I mean that power which the child can use in his every-day life as he performs the duties of a good citizen, power that aids him in becoming self-supporting, power that is a means to further self-development, power that makes him independent, and power that is in order to the enjoyment of life.

This then lays the basis for the kind of work to be done in our elementary schools, and its special application to reading is obvious. We shall speak of four phases of the work in reading which partake of the nature of technique and which may not be neglected without injury to our school work.

The first of these is a definite, thoro training in certain elements which are essential to the intelligent use of self-helps. It was stated above that in the primary grades much drill on the elements finds its place. This is as it should be, and from these elements, mere raw materials, something can be made that will serve a larger purpose in later school days and in life. These elements must be so mastered as to be of value later. They must become available in actual practice.

In the second place there should be training in the use of self-helps. All about man today are books, papers, etc., which can be made use of by him if he is trained in the proper use of these helps. Educated man either knows, or knows where to find what he doesn't know, and how to acquire what he has found. We need to teach our youth to know some things, to know where to look for the things which he doesn't know, and to make him master of that which he has found. To be more specific in a few instances, I would have every child, upon leaving the elementary schools, know how to use the dictionary, and books of reference intelligently, and perhaps how to make the most of a library.

Not only must elements and the use of self-helps be mastered, but also training in the accurate mastery of the content of the printed page deserves mention here. We are living in an age of many books, newspapers, and magazines. He who cannot get the content of the printed page rapidly and accurately loses time which is a thing of great moment. Silent reading is a matter of technique which becomes paramount to any one in busy life or in schools of higher education. This is a power which can be trained to an almost unlimited degree.

This is also an age of expression as well as of acquisition. Not only must a man be taught how to acquire knowledge and information, but he must also learn to express himself before his fellow-men. The laborer wants to be heard by his fellow-men, the farmer has occasion to discuss before his fellow-farmers the questions of the day as well as the problems of his own calling, and man in society has opinions which demand expression. This power of expression should be trained in the elementary school to a greater degree than it is at present. To this end the argument for considerable good oral reading has a place in the discussion of the technique in reading. The declamation, or the selection found in the reader, memorized and spoken intelligently, manfully and forcefully also demands more attention than it at present receives.

Bearing all this in mind, we ask ourselves the question: shall the technique be of such a character as to benefit those who never go beyond the elementary school, without due consideration for those who enter high schools, academies, seminaries and colleges? The answer is not far to seek. Generally speaking, that training in technique which makes the child by the time he leaves the elementary school practically independent of teacher and tutor in the getting of thought from the printed page is also the best training for the youth who pursues courses of study above the elementary schools. Good training in technique in the elementary work almost invariably predicates a successful career in higher education.

MORAL TRAINING AN ESSENTIAL FACTOR IN ELEMENTARY SCHOOL WORK

R. R. REEDER, HASTINGS-ON-HUDSON, N. Y.

An interesting study on the history of education in this country is the shifting of emphasis from one point to another in the zig-zag course of development of the public-school curriculum. There is probably no better index to an estimate of the relative worth placed upon the various branches of study or methods of teaching them in the elementary school than the proportion of time devoted to their consideration in the programs of this Association during the fifty years of its history. In running thru the Annual Reports one soon discovers a surprising dearth of matter on the subject of the teaching of morals. Each branch of the curriculum in its manifold aspects of content and method has been treated again and again, and great progress in the making of a course of study better adapted to the needs of the children and of the times has undoubtedly resulted from these discussions. But instruction in morals, altho conceded to be of vital necessity in all educative endeavor, has never had extended or intensive treatment at the hands of this Association, and from the present status of moral instruction in our public schools as compared with any former period, it is not easy to see that any progress in this field has been made. The inconsistency involved in conceding first rank in worth and least attention in discussion to this subject of instruction may be explained by the fact that our public-school system was established as an adjunct to the home and the church at a time when both of these institutions stood for much more in the life of the child than they do today; at a time when the child was much less a ward of the state than he is today, when life was rural, homes were houses and lands with firesides and gardens—not tenement boxes—when religion was potent in the home, parental authority was unquestioned, and the church and minister functioned largely in every community.

These conditions have all changed. The delinquent child of today is the product of city and town life. Out of 130,000 children in our reformatories, 98 per cent. come from cities, towns, and villages. At the House of Refuge in New York City 78 per cent. come from the tenement district. In Baltimore crime is 50 per cent. greater in the slum tenement district than in the city at large; in Chicago 260 per cent. greater.

With the growth of factory industries the home as an industrial center has steadily declined. With the elimination from home life of the old-fashioned chores and daily responsibilities for home-making services and industries, has come the breaking-down of family discipline and parental control. Children can't behave if they have nothing to do. An idle child is a danger signal.

Today and for the next ten weeks all over this country hundreds of thousands of idle children will be flying danger signals.

Along with the weakening of home influence has come an immigration of a million or more foreigners annually—parents too ignorant to learn our language with children too quick to grasp the privileges of American liberty without the sense of self-control or social responsibility which safeguards it. The result upon child life of all these disintegrating factors is not only an increase of juvenile depravity, but a ratio of precocious crime and delinquency not known a half-century ago.

While the state may have been but a passive agent in the recidivism of the home resulting from changes in social and industrial conditions, she has nevertheless been an active agent in the elimination of religious instruction from the public school. Moral instruction in the earlier period of education in this country was inseparably bound up with religious instruction. But the state in demanding of the church "hands off" in all matters pertaining to the public-school system has brought about a gradual but effective elimination of religious instruction from public education, forced a schism between religious and moral instruction, and left the latter swinging in the air. Whatever may be true of the ability of the mature mind to form moral conceptions and act upon moral grounds independent of religious feeling or of the consciousness of a Supreme Being, it is certainly true that such ethical abstractions do not appeal to the child mind. At each step in the elimination of religious instruction from the public schools the state has assumed increased risk. The public-school system is the extension downward of the nation's police force. It is the peaceful arm of the police system before it has become necessary to don the blue coat, brass buttons, and locust wand. The only rational and adequate means at the state's command to safeguard and perpetuate herself, her laws, and her institutions, is thru the education provided for her future citizens in the public schools. The state is expending immense sums of money trying to correct grievous ills by legislation. The children of today form the state of tomorrow. Nine-tenths of these children receive their education in the public elementary schools. Character by culture thru public-school education instead of by-laws and penalties should be the aim of the state. An education which is not moral is unsafe both for the individual and for the state. With these facts before us—which must be patent to everyone—it certainly needs no further argument to show that moral instruction is essential to elementary education.

Except for the peculiar conditions under which public elementary education has developed in this country, it would certainly be uncomplimentary to us as a body of teachers and to our progress in educational affairs to find it necessary to discuss at this late date such a fundamental proposition as that which forms the subject of this paper. Its appearance on the program is a confession of neglect in previous years to give the teaching of morals the consideration due to such a vital interest to education and democracy.

In his paper before the National Council of Education at Los Angeles last year, Mr. Clifford W. Barnes, chairman of the Executive Committee of the International Committee on Moral Training, said:

> Generally speaking, systematic moral instruction may be said to have no place in our American school system, for it has only been tried to a very limited extent in a few small places.

The organization two years ago in London of an International Committee on Moral Training, the cordial hearing given this committee by the National Education Association a year ago, the special investigation of the problem of systematic moral instruction in public schools undertaken by the Association, for which a generous appropriation was made, the establishment of an executive office in Chicago by the International Committee, and the employment of a number of experts gathering statistics as to the best work being done along the line of moral training in the schools of eight European countries, indicate an awakening of interest in the subject greater than at any previous time in the history of education in this country.

An old argument, but one which is usually maintained with much vigor whenever the question of moral instruction is up for discussion, is this: The organization of the school and the various branches of study included in its curriculum are pregnant with moral content; some even go so far as to say with religious ideas and implications. In fact, one writer in a discussion of the subject says:

> Each study and each experience has its roots in the infinite. There is no subject in the curriculum, there is no relation in the life of the school which is not packed with potential divinity, and which may not make for morality.

This reminds one of that beautiful little story of the flower in the crannied wall. But alas! most teachers see only the primrose by the river's brim.

Unless we are going to get closer to the problem of moral instruction than simply to consider the implications of morality which are supposed to lie in the school organization and the curriculum, we shall but follow the course of previous discussions of the subject in teachers' conventions; namely, tarry a few minutes over the question in this great gathering of teachers and then "like a man beholding his natural face in a glass" go our way and straightway forget what manner of discussion it was. Something more definite, more concrete than the "potential divinity in things" is necessary in order that public-school instruction may issue in moral character. Nor would it be profitable for us to spend time defending the public school against criticism for lack of moral instruction or disclaiming responsibility for moral training on the ground that the school controls but about one-eighth of the child's time. We do great things along other and less important lines of instruction thru the public schools. Why should we not accomplish much along moral lines? The only valid excuse, if any, which might be offered would be the fact that we are forced by the logic of events to teach morals apart from religious instruction. But there is a way around this. While the state has forbidden religious instruction—which practically means the use of the Bible as a textbook—it has not taken a stand against religion as such, nor the use of religious appeal.

A child responds to an appeal to his religious consciousness much more readily than to his moral instincts. I have again and again had children before me who were guilty of lying or stealing and have attempted to awaken in them a strong feeling of moral responsibility and guilt, only to be met with an armed and stubborn indifference; but a simple turn from the moral to the religious aspect of the deed, from the abstract, ethical principle to the offended love and justice of a Supreme Being, rarely fails to bring forth an emotional response, a confession of guilt, and a sense of humility which furnish a basis for a new start. Is this teaching religion? If it is I would that every teacher might be guilty of it. But there is large room for moral instruction in a field in which the religious motive functions but indirectly or not at all. I refer to instruction in sex, sanitary, and health knowledge, in social manners and amenities, in the field of sport, etc.

That which reaches the child thru his experience is tenfold more a part of him than that which comes to him thru mere ideas or sensory stimulus. One moral experience is worth a score of formal lessons in morality.

One of the boys in our garden class stole radishes from another boy's garden and was caught in the act by two or three of his companions. All of the gardeners were at once assembled; the boy and his case were set before them. A motion was made that the boy forfeit his garden. It was one of the best in the plot, but by his deed he had forfeited his right to its ownership. The motion was unanimously carried. When the assembly was asked if there was any further business concerning the matter, a motion was made that this boy be required to weed all of the other gardens. This motion was not entertained by the chair, but would no doubt have carried if a vote had been taken on it: First, because, on account of recent rains the gardens were weedy; second, because of natural laziness in relation to such work as weeding gardens; and third, because the thief was an unpopular boy.

Soon after the walls and ceilings of one of the boys' cottages in our Orphanage had been decorated, a boy made with a nail an ugly scratch about ten feet long thru the paint on the wall of one of the dormitories. He was reported at once and brought to the office by other boys of the cottage with the request that he be "everlastingly licked." But they were soon convinced that there was no connection between his offense and a "licking." They were then given some instruction as to principles of punishment with special reference to the fact that punishment should bear a natural relation to the offense and that it should, when possible, take the form of an indeterminate sentence. The matter was referred back to the boys for further deliberation. The decision reached and presented the following day was that the boy should sleep in the attic and go to bed in the dark until such a time as it was thought safe for him to return to the dormitory. He was kept sleeping in the attic for about six weeks.

Several interesting inferences may be drawn from such instances as these: First, that children are capable of rational action upon moral questions; second, that it is unsafe to give absolute authority into their hands as has been attempted in some of the city school-government schemes; third, that participation in government under proper restriction is an essential factor in the training of the future citizens of a democracy; fourth, helping to discipline and govern others promotes self-government, for not one case of stealing from gardens has been reported, or, to our knowledge, occurred since this case, which happened three years ago. The damage to the wall was repaired and no similar case of vandalism in the cottage has occurred for about the same period.

Each new boy coming into the cottage comes up against a moral leverage with respect to certain home-making refinements and industrial standards which he cannot resist. He is seized and shaped to the molds by forces which he cannot withstand. The same may be true with respect to moral standards in any school if the teacher works wisely and diligently to establish them.

Public sentiment may become as potent a factor for moral uplift among children as among adults. Almost unlimited possibilities for good lie in it, but it is comparatively a neglected field in school discipline. Two of my children attended a high school in Massachusetts where there was almost no cheating or cribbing and what little existed, was frowned down upon by the students—the tone of the school was against it. Later on they attended a high school in another state where there was no sentiment against cribbing, and the practice was very prevalent. I am confident if the garden thief and the cottage vandal had been dealt with as individuals only, other similar cases would have followed no matter what the punishment might have been.

The first step in the movement for moral instruction in the schools is the making of a place for it on the regular program. Until this is done it will be to little purpose that we devote time in teachers' meetings to a discussion of the subject. It is about as reasonable to expect spelling or arithmetic to receive sufficient attention thru indirect instruction and incidental attention or application, as to assume that moral instruction will be effectually imparted thru the observance of the regular school virtues such as silence, order, punctuality, etc., and the so-called moral content of the various branches of the curriculum.

Direct as well as indirect instruction in morals should be given in our public schools. The fear of making a moral lesson or application too direct or too obvious has become a fetich with many teachers, and the result often is that no moral instruction whatever is given. The three following cases which have come within my experience are typical of many other similar ones. William—an undersized fourteen-year-old boy—when asked why he was so small for his age, told me he could not account for his lack of physical development and vigor unless it was due to the smoking of cigarettes from about seven years of age until brought to the Orphanage School. He said he did not know the habit would injure him. He is a good boy, trustworthy and well disposed, and would no doubt never have formed the habit had he been properly instructed.

Laura, now fourteen years of age, brought with her a vulgar bowery song three years ago when she entered the school, which she immediately proceeded to teach to the other little girls. The song was brought to the office by an older girl. The child showed little knowledge of the meaning of the song when questioned about it, dropped it at once when instructed concerning it, and is now one of the most refined girls in the school.

Kenneth, at fifteen years of age, told me what a hard struggle he had had to break up the habit of self-abuse after my first conference with the boys on the subject some three years before, also that he had not known the practice was wrong or would work injury to him until so instructed.

School nurses and settlement workers find in thousands of homes deplorable ignorance concerning dietary, sanitation, and the care of children and the sick, resulting in ill-health and a high mortality rate. So may teachers find among school children such distressing ignorance concerning morals as results every year in a record of juvenile delinquency, vice, and crime, all of which could be greatly reduced by proper instruction.

DISCUSSION

Fassett A. Cotton, state superintendent of public instruction, Indiana.—In the discussion of the paper I shall confine my remarks to the consideration of two points: the teacher the greatest factor in the school, and the nature of school work. These will be considered as factors in moral training.

The greatest factor in any school is the teacher. Indeed, the entire success of the school as an institution depends upon this factor. The greatest problem in connection with school education has always been to secure competent teachers, and this will always be the greatest problem.

The qualities that make for success in teaching are exactly the same as those required for success in any calling. These are: (1) Personality; that is, the quality of being somebody, oneself, and at the same time recognizing that there are others. It carries with it the ability to meet people and to take part in the affairs of the community. An ideal teacher presupposes the highest standard of morality. In discussing this standard it must be remembered that the real teacher is always more, much more, than a mere instructor. While consciously imparting knowledge the teacher is unconsciously teaching infinitely more than the mere facts involved in the subjects in hand. Imitation is one of the strongest factors in education. All unconsciously the children take on the physical bearing of the teacher, his manner of speech, his mode of dress, his ways of thinking, his very character. The teacher becomes a model of the children whether he would or no. It is not sufficient then that he be a good instructor merely. He must possess that subtle something called personality which by its very presence teaches.

Recognizing this as true, the people, almost as a matter of fact, have come to set up a higher standard of conduct for teachers than for others. This is perfectly proper. A teacher's conduct is the evidence of his character; therefore the necessity of genuineness in the teacher, who is the guide, the inspiration, the source of the life of the school, cannot be overestimated. The school will be just what the teacher is—it can be no more.

The last chapter in *Glimpses of Child Nature*, a little book written by the author of *Jean Mitchell's School*, describes six types of teachers. There is the profuse and gushing little entertainer who doesn't know the difference between a nursery and a school. There is the snappish, ironical, sarcastic, suspicious tyrant who seems to think the chief end of teaching is to humiliate the children. There is the nervous, energetic, worried teacher, sometimes really sincere, but wearing herself and her pupils out. There is the self-satisfied, placid, deliberate, lazy teacher. There is the "best disciplinarian in the city," who has no time to waste in teaching. Then, there is the genuine, womanly woman, with the missionary spirit, with a genius born to teach, with a personality whose presence brings sunshine, whose words cheer, and whose smile is a benediction. We have seen all of them. What a misfortune it is that the children must come under the influence of the first five! What a misfortune that all children cannot enjoy the presence of the sixth type! The teacher makes the school what it is—a joy or a sorrow to childhood. We must have scholarship in our schools; but with it we must have men and women. The teacher owes it to himself and his pupils to be just as true, just as cheerful, just as genuine as possible every day.

(2) Scholarship, the knowledge of the subjects he is to teach or of the things he is to do. A teacher's knowledge of a subject is quite comprehensive. It includes a knowledge of the facts themselves, a knowledge of the things that make the facts a subject, a knowledge of the nature of the mind that is to learn the facts, and a knowledge of all the conditions under which the facts are to be learned.

(3) Skill in presentation, or the ability to do things. This carries with it the power to take the initiative in school work. Combining these three qualities there should be the simple common-sense that enables one to adjust himself to any and all conditions that may arise.

With these qualities present a great deal may be done in the way of teaching morality. But this can only be done by teaching eternal principles or right conduct. It is a question of making each individual realize completely the "ethical self." This involves the question of personality already referred to. He only can be moral who, in every act he does, is conscious that there are others. Acts are moral, immoral, and unmoral, and education should make each individual able to discriminate.

Persons able to discriminate can be developed, and this, I take it, is the work of the teacher in the realm of morality. But this must be done largely thru living. The daily concrete acts are to be the means; the people cannot be legislated into being moral. For example, temperance cannot be taught by showing pictures of alcohol-inflamed stomachs. Temperance is a broader, subtler thing than is indicated in so-called "scientific temperance." The story of Daniel's right living is a better temperance lesson on the positive side than all the negative lessons that can ever be taught. Morality must be grown by feeding upon positive fundamental truths.

The child ought to be taught to use his senses in nature that he may take on habits of observation. He is to be taught to express in one way and another what he has observed that he may get skill in doing things and habits of industry. Out of such experience comes good judgment, which is also habit, and is the very essence of morality. By constantly practicing those things which he would do and be, one builds into himself, by a sort of human immanence, the character he would possess. The man who learns to get things just right and true in the physical world and whom nothing else satisfies cannot be a bad man, so closely do exactness and uprightness run together. Indeed, physical and spiritual training are so closely related that separate consideration is almost impossible. It is recognized that doing things physically carries with the doing exactly the same growth of character or moral power that doing things spiritually does.

Too much attention cannot be given to the moral training of children. Indeed, it is agreed that the supreme end of all education is manhood and womanhood, and that all subjects taught and all things done in the school are but means to this end. Children are to be trained so that thought and act will withstand automatically every temptation. A judgment that cannot err is the only positive safeguard in life. President Eliot says:

> The school should teach every child, by precept, by example, and by every illustration its reading can supply that the supreme attainment for any individual is vigor and loveliness of character. Industry, persistence, veracity in word and act, gentleness, and disinterestedness should be made to thrive and blossom during school life in the hearts of the children who bring these virtues from their homes well started, and should be planted and tended in the less fortunate children. Furthermore, the pupils should be taught that what is virtue in one human being is virtue in any group of human beings, large or small—a village, a city, or a nation; that the ethical principles which should govern an empire are precisely the same as those which should govern an individual; and that selfishness, greed, falseness, brutality, and ferocity are as hateful and degrading in a multitude as they are in a single savage.

After all, the surest way for a boy to be somebody is for him to learn to do something well. The dominant instinct of childhood is that of action. The healthful child must be doing something, and all of education in the home and school could be narrowed down to a skillful direction of this energy. No child is naturally bad, but the child who is very much alive may shortly develop wrong tendencies if he is not directed in right channels. The solution of the problem lies in the utilization of all home and industrial experience to build into the child habits of industry.

The boy and the girl must be taught to do things for their salvation. A system of education that leaves one without the power to undertake and accomplish things in life is worse than worthless. The parent who permits his boys and girls to grow up without teaching them to help themselves, is, to say the least, very unkind to them, and this unkindness may easily shade into criminal neglect.

If this nation is to endure all of the people must be educated. They must be intelligent, temperate, industrious, skillful and constantly employed if they are to be prosperous and happy. These are the qualities that belong to real education.

MATHEMATICS IN THE GRADES

ROBERT J. ALEY, INDIANA UNIVERSITY, BLOOMINGTON, INDIANA

Mathematics is a universal subject of study. It has long had a very prominent place in the curricula of elementary, secondary, and higher schools. It has had more time than any other subject, unless it be language. The time and energy given to it speak eloquently of its value. The place of mathematics in the school course is in no danger. The friends of the subject, however, can do good service by calling attention to the reasons why it is in the course of study, to a better arrangement of its material in the curriculum, and to improved methods of teaching it. The course of study will be more reasonable and the teaching more rational if both are based upon the nature of the subject taught.

In general, a subject has no place in a course of study unless it furnishes the student with useful knowledge and also contributes to his culture. Mathematics justifies itself as a subject of school study on both of these grounds.

It would be difficult to find any subject more closely related to every-day life than elementary mathematics. The child does not live long until he feels the need of quantifying and numbering his experiences. He must know the common mathematical experiences of his fellows in order to be on good terms with them. A careful analysis shows that but few of the experiences of life are wholly free from mathematical notions. Should all mathematical ideas be eliminated, factories would be closed, commerce destroyed, and business stopped. Such simple matters as telling the time, or buying four pounds of sugar, would be entirely impossible. A subject so closely connected with the common every-day affairs of men must ever be a matter of school study.

On the side of culture, mathematics is able to do some things for the student better than they can be done by any other subject. Being a pure science, the science of necessary conclusions, it early introduces the learner to organized knowledge, to logical thinking, and to necessary inferences. In mathematics conclusions are not made because they are pleasing or desirable, but because they are inevitable. The nature of mathematics is such as to train the student away from the formation of conclusions to buy gold-bricks of any style. If the mathematical type of thinking were more common, the get-rich-quick concerns would be less common. The delusion of 50 per cent. dividends on stock that cost 10 per cent. cannot long remain in the mind of the man who thinks mathematically.

The mathematical form of thinking is of great importance. It is fundamental, for it has been developed in every civilization. It may be described as consisting of three parts: first, the careful observation of facts; second, the application to these facts of known principles; and third, the making of the inference that facts and principles compel. No one ignorant of this form of thought is either safe or educated.

The nature of mathematics is such that it compels attention. No one can master its secrets unless he gives himself wholly to the task. The immature student soon finds that wool gathering in mathematical work is costly. In adding a column of figures, if the mind wanders at the half-way point, the penalty of doing it all over is immediately assessed and collected. In long division, the least wavering at the moment that the quotient figure is about to be determined is disastrous. It means going back and doing it all over again. This happens everywhere in mathematics. For every act of inattention the penalty is immediate and certain. The certainty of the penalty soon brings respect for the law, and the student begins to resist the pull of outside forces. He learns to attend.

The course in mathematics for the grades should be formed so as to meet the needs of the child by contributing knowledge that he ought to know, and by giving power that he should have. The great fundamental storehouse of mathematics is arithmetic. It is at the bottom historically, logically, and psychologically. From the necessity of the case it must form the main part of the grade course in mathematics. The grade course should be made for the grades and not for the high school. For this reason formal algebra and geometry have no place in the grade course. The algebra of the equation and much concrete geometry should be in the course. There is no longer any good reason why either teacher or pupil should shy at an equation or dodge a simple geometrical fact. It should be remembered that mathematics is in the singular number. No definite boundaries separate its subjects. Arithmetic, algebra, and geometry overlap and interlace. Much of arithmetic becomes easy and intensely interesting by the use of the equation or by the application of some simple concrete geometry. In some of our best textbooks both of these ideas are included, but generally in a supplement or in separate chapters. These ideas should be embodied in the arithmetic as an integral part of it.

Much of the fundamental part of arithmetic must be remembered. The reasoning of the later parts is greatly hindered unless there is the material for reason in the memory. No power of the mind is more active in the early school life than the memory. During the first four years of school life, normal children take delight in exercising this faculty. The course in arithmetic should use these years for gaining mastery of counting, and of all the fundamental relations of numbers. In many of the best schools of Europe, nothing beyond the fundamental operations, except the simplest sort of work with fractions, is attempted. In many of our schools we have been too ambitious and have attempted work entirely too difficult. It would be far better to make the arithmetic of the first four years fit more closely to the nature and needs of the child.

Upon his entrance to school, indeed, several years earlier, the child has need of numbers and derives keen pleasure from multiplying his number experiences. Number opens for him a new soul window and gives him a wider outlook. Work with number should therefore begin in the first grade. If argument for this statement is needed, one finds it in the experience of Pestalozzi and in the success of thousands of his disciples. It has been urged in opposition that the time during the first and second years of school life could be used to better advantage in doing other things. This may be true, but the better things have not yet been found. The task of finding a substitute for number work that will prove more interesting, and give more valuable returns, is so hard that a thoughtful man will hardly undertake it.

In the first and second grades the work should center about counting and number applications to very simple experiences. In some schools this work is made incidental. The objection to such a program is that it generally becomes accidental, and nothing of value is accomplished.

The work of the first two years should include systematic exercises in counting by ones, twos, and threes, forward and backward, acquaintance with number symbols to at least 100, and the number combinations involved in the experiences common to this age. It need not be said that most of this work should be concrete. In the counting, however, the child soon gets away from the need of actual things, and counts from the sheer joy that the rhythm in the counting gives. The child should have the number symbols, because they give him needed tools and make it easier for him to be kept busy rationally. In the third and fourth years counting should be extended to include counting by nines, tables of the fundamental operations learned, the commonly used facts of our system of weights and measures mastered, skill gained in speedy and accurate addition, subtraction, multiplication, and division, mastery of the meaning and use of the few commonly occurring fractions attained, and the ability gained to apply the tool, mathematics, to the simple problems of buying, selling, and measuring. Incidentally, and not accidentally, thru the first few years, acquaintance should be formed with the common geometric forms, these simple properties learned, and number applied in determining easy boundaries, areas, and contents. The interest of the child is so closely related to physical activity, that a large part of the mathematical material of the first four years should come thru the work that the child does. Many of the problems that he solves should be made from data that he himself has gathered. This data may come from his other studies, from measurements that he has been directed to make, and from experiences at home, at the grocery, or in the shop. Whatever relates number to the experiences of life will help in keeping up the interest.

With the fifth school year the more formal side of arithmetic should be begun. The child has now reached a stage in his development when he can begin to appreciate more formal statements and sustain interest in more complicated reasonings. The transition should be gradual. The more complicated problems should be seen to arise easily from the experiences of home, farm, shop, and business.

The work of the last four years of school in the grades should include fractions, common and decimal, percentage as used in profit and loss, dividends, assessments, taxes, gains in wealth, population, etc., simple interest, with principal, time, and rate given, ratio and simple proportion, mensuration applied to all commonly occurring forms, square and cube root by factoring, square root formally, problems of analysis, and sufficient algebra to insure the easy use of the equation. The obsolete and needless parts of arithmetic should be omitted. Many of the recent textbooks have done well in omissions. Perhaps none of them has quite succeeded in getting rid of all the useless lumber of the past. There are sufficient fields of present-day arithmetical application to use all the school time of the child. Giving time to the dead things of the past is not only needless, but very harmful. Our system of weights and measures is bad enough at its best. All obsolete and unusual units should be omitted. Such tables as Apothecary and Troy are for the druggist and the jeweler, and have no place in school study. The addition of several numbers, each consisting of miles, furlongs, rods, yards, feet, and inches, is never required outside of an arithmetic, and it should not be required there. Long problems requiring reductions thru three or four units are simply useless refinements of cruelty, and should be relegated at once to the junk-pile of oblivion.

Greatest common divisor by long division has no application outside of a book, and besides, no pupil in the grades can comprehend it. It should be omitted and the factoring method alone taught. The same is true of least common multiple. Its applications are simple, and the factoring method is sufficient In fractions much time could be saved by limiting the work to fractions of frequent occurrence. Entirely too much time is spent in reducing fractions to uncommon denominators. In percentage and interest most of the indirect cases are of but little practical importance. They should not be treated arithmetically, but should be handled by means of the equation. In this way they become interesting, easily understood and readily retained. Such applications of percentage as involve fractional parts of bonds and shares of stock and the inverse case of commission and brokerage should be omitted. Compound and annual interest and partial payments, except in very simple form, should be omitted. The subject of exchange, as usually presented, is far more complicated than the reality. Only its simple business side should be presented. Square root has little application and cube root still less. Omit the latter entirely and teach the former as simply as possible. Other subjects that should be omitted are circulating decimals, true discount, equation of payments, complicated problems, partnership, compound proportion, and all business problems which do not conform to present usage.

The course should be planned and organized with the following very definite ends in view:

a) Accuracy and reasonable speed in the performance of all fundamental operations.

b) Power to add or subtract mentally any two numbers less than one hundred.

c) Skill and ease in the use of short cuts, especially those involving the use of aliquot parts of one hundred.

d) Complete mastery of simple fractions in all useful relations.

e) Absolute mastery of the use of the decimal point in all operations with decimals.

f) Acquaintance with business forms and customs, as found in stores, in shops, in banks and on farms, and ability to use mathematics in answering questions that arise in these various forms of business.

g) A good acquaintance with the simple equation and the habit of using it in all arithmetical problems where its use is advantageous.

h) The mastery of the common useful facts of geometry which may be attained by concrete or inductive methods.

i) Skill in straight thinking in the presence of complicated data.

However valuable the study of mathematics may be, and however perfect the course of study, the best results will not be attained unless there be a good teacher. The teacher is always the most important factor in the school life of the child. Buildings, apparatus, textbooks, and course of study may all be eliminated, but as long as there is teacher and child, good educational results are possible.

A very essential equipment of the teacher is wide knowledge of mathematics. He who knows arithmetic only, does not even know that. Arithmetic is a part of the science of mathematics that is not seen in its beauty and bearing unless it is looked at from the vantage-point of a more advanced part of the subject.

Algebra and geometry throw much light upon arithmetic, because they have their roots in it, and because their elements are a part of it. Wide knowledge of mathematics enables the teacher to judge the relative values of different topics, to see the logical structure of the whole subject, to anticipate and prepare for difficulties, to recognize the recurrence of old truths in new dress, to be fertile in illustrations, and to grade the presentation to the needs of the class. It is a mistake, often repeated, to suppose that wide knowledge will cause the teacher to teach over the heads of his pupils. Over-the-head teaching is usually a cloak for dense ignorance of the subject. The teacher has not yet been found who has stood before his class embarrassed because he knew too much about his subject.

The teacher needs some pedagogy of mathematics. He needs to re-think his arithmetic with a view of teaching it. He needs also to be able to put himself in the place of the learner. This requires considerable knowledge of child psychology. The ordinary pedagogical preparation required of all teachers is the foundation for the mathematical teacher. His particular preparation consists in fitting his psychology to the subject of mathematics, particularly to arithmetic.

The early part of arithmetic must of necessity be concrete and inductive. To be interesting it must be connected with familiar experiences. The child, however, soon gains the power of abstracting number from objects and finds keen delight in dealing with number apart from objects. There is a time when it is necessary to connect some sort of a story with five. The teacher who continues this number story-telling very long, not only does an extremely silly thing, but a very harmful thing as well. Growth is toward the abstract and the symbol. This growth is greatly retarded and may be entirely stopped by continuing too long with the concrete. The guide here, as elsewhere, must be the judgment founded on common-sense.

In the more advanced parts of arithmetic the problem is the most important factor in the development of the student. It is the exercise ground for the mathematical form of thinking. The teacher should see to it that the problem yields all its worth to the student. He should teach the student to attack the problem in the following systematic way:

a) Read the problem and thereby get in mind all the given relations and the unknown things to be determined.

b) Think—that is call up in mind the mathematical principles needed and decide how they are to be applied.

c) Make a symbolical statement of the solution.

d) Make the required calculations and verify.

Good teaching will lead the student to apply this form of solution to all problems.

There is no better whetstone of wit than mental arithmetic. Good teaching will restore mental arithmetic to the place of honor and power that it once held. It cultivates mental alertness, quick and accurate thinking, and the most direct method of attack. If a few minutes each day were spent in mental arithmetic thruout the grade work, much better results would be attained,

Finally, good teaching requires time, care, and patience. Ideas are not fixed in a moment. They must have time to germinate. Care must be taken in cultivating the ideas, so that vigorous growth may be possible. Patience is needed to enable the teacher frequently to step aside and wait, for in mathematics the purpose of the teacher is to make himself useless to the student.

DISCUSSION

I. C. McNeill, superintendent of schools, Memphis, Tenn.—In discussing the question of numbers, or arithmetic in the primary grades, a working-basis must be assumed or agreed upon. I take it that as to what should be taught there is a wide difference of opinion. The legal age at which children may enter school is a variable factor in the different states. Hence, what may be required or advised for children in Tennessee, where the legal age for entering school is six years, would be too strong for the children of Wisconsin, or any other state with similar laws, where children may enter while they are still tender infants.

For the reason suggested, the standard of requirements cannot be uniform in the various states and it is unwise to attempt to make it so. Time spent upon a discussion of the practical side of the extent of the work in the lowest grades is not well spent in this Association.

The course of study in the elementary grades should be framed to make the attack from the concrete side. When the sensational element has entered the minds of the children, it should be kept alive by use. The aim to make pupils become quick, accurate, and self-reliant in dealing with the elementary arithmetical tools, addition, subtraction, multiplication, and division, should characterize the work. In arithmetic, as in other lines of study, percepts, concepts, and necessary relations are strengthened by vigorous but rational use. The pupils who become free in the processes are not bound in attacking new and more complicated concrete relations as they appear in succession in a well-planned course.

As to the plan of the study of primary numbers the question is not so complicated. The movement of the mind in grasping primary number ideas and the relation between them is a problem of rational method. Any method to be of value must rest upon the capacity of the pupils taught and a knowledge of how the mind works in making a union between the thing and the symbol used to represent it, as well as how relations between quantities or numbers are firmly and correctly established.

There is often a great waste in elementary number work because some teachers, who are not imbued with the fundamental conceptions of numbers and arithmetical relations, fail to stimulate the pupils in a way which will cause them to make the initial attack with sufficient vigor to accomplish something in each new lesson. Partially understanding the subject, the teacher, imbued with the idea that arithmetic is a fad, does not see the end to be reached from the beginning. Her pupils "mark time" and in the course of events reformers (?) with no regard for the needs of the children attempt to banish number work from the primary grades.

A few "old-time" principles which should bring about conscious and habitual reactions are:

The idea must precede its symbol.

Close observation makes correct comparison possible.

Sense impressions precede thought relations.

Rational movement proceeds from the known to the related unknown; from the simple to the complex; and from the concrete to the abstract.

First impressions must be clear, distinct, and vivid in order to leave correct mental images by which later impressions may be apperceived.

The first problem should look to the last thru all that come between.

The development of each section of work should furnish a foundation upon which the new mental images that immediately follow may stand.

A constantly increasing demand upon the pupils' mental activity should go hand in hand with his progressive gain in power.

How to prepare the lesson is the most important question to the pupils. They cannot work intelligently unless they understand the aim of each day's study. The function of the teacher is to guide activity. Learning is the pupil's act. Before an intelligent assignment of a lesson can be made the teacher must consider carefully just what steps are new and how far the pupils are prepared by what they already know for the advanced work. In assigning the lesson the teacher should impress upon the pupils the particular end in view; and should make sure that they understand just what they are to accomplish and by what plans and devices they may best succeed. The next day's recitation will test the understanding of such directions and the faithfulness of a class in following them.

In determining the pupils' preparation to begin a new line of work the skilled teacher will approach the learners on their highest plane of old work, directly related to the new material to be considered. If they move from this position with ease and freedom, it is good evidence that the lower phases of the subject are well organized in their minds. If they do not show a mastery here, it is well to descend to the next lower phase, or to a place where they are able to stand firm.

Diagrams are of great value in teaching fractions and all other relations in which the spacial element may enter. As a rule, it is a good plan to leave diagrams on the board for constant use until the pupils can readily visualize them. When the diagrams can be held in the minds without too much effort, it is not helpful to attention or study to keep them before the pupils. In their study it is of great value to have pupils picture or represent new conditions in diagrams. Mensuration is not comprehended until pupils, thru practice and test, perceive the relations.

Explanations should always be given in simple, direct sentences. It is sometimes a good plan to have one pupil tell the story of a problem in part and then have another complete the statement of the process by which the correct result is reached.

When, by questioning or being shown, the backward pupils have learned how to dispose of the material in hand, they should be called upon to show that they can take all the steps leading to the correct end. A good test is to change the condition somewhat and then ask for a solution. In bringing a pupil to an understanding of a problem or a principle the learner must always go back to what was known as a starting-point.

As we look ahead to plan what should cause effort to move without loss of time or waste of energy, the question: What is to be done with this day's lesson in elementary arithmetic? becomes both practical and philosophical.

DEPARTMENT OF SECONDARY EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—Gilbert B. Morrison, principal, William McKinley High School, St. Louis, Mo.

First Vice-President—H. H. Cully, principal, Glenville High School, Cleveland, Ohio.

Second Vice-President—Fletcher Durrell, Department of Mathematics, Lawrenceville School, Lawrenceville, N. J.

Secretary—Solomon Weimer, assistant principal, Cenplal High School, Cleveland, Ohio.

FIRST SESSION.—Tuesday Afternoon, June 30

The Department of Secondary Education met at Epworth Memorial Methodist Episcopal Church, Cleveland, at 2:30 p. m.

President Gilbert B. Morrison read an address on "The High-School Situation."

J. Remsen Bishop, principal East High School, Detroit, Mich., presented a paper on "A Shifting of Ideals Respecting the Efficiency of Formal Culture Studies for All Pupils." This paper was discussed by George D. Pettee, principal, University School, Cleveland, Ohio, and David S. Snedden, Teachers College, New York, N. Y.

"How Shall We Assist Our Pupils When and Only When They Need It?" was the subject of a paper by H. E. Kratz, superintendent of schools, Calumet, Mich.

The discussion of this paper was opened by W. H. Holmes, superintendent of schools, Westerly, R. I. General discussion followed.

SECOND SESSION.—Wednesday Morning, July 1

The department met in joint session with the Department of Technical Education to consider the topic: "The Cosmopolitan High-School Curriculum." This was presented from the standpoint of colleges of engineering by W. T. Magruder, professor of mechanical engineering, Ohio State University, Columbus; from the standpoint of the high school by Spencer R. Smith, principal of Wendell Phillips High School, Chicago.

The discussion was introduced by Wells L. Griswold, principal of Rayen High School, Youngstown, Ohio.

Upon motion of Spencer R. Smith, the following resolution was adopted:

> *Resolved*, That a commission of seven be named by the Department of Secondary Education to make a study of the conditions surrounding our city high schools with a view to the development of a rational system of constants, the reorganization of the electives on the basis of study value, and the preparation of a curriculum that may be considered basal in the organization of a system of study for the cosmopolitan high school.
>
> Further, that this commission co-operate with a similar committee from the Department of Technical Education and with such other bodies as may be interested in the work of secondary schools.
>
> And, further, that this commission be herewith empowered to invite the co-operation of other organizations thru invitation to appoint committees of conference.

THIRD SESSION.—Thursday Morning, July 2

The department met in Epworth Memorial Church, at 9:30 a. m.

A paper on "School Athletics" was read by Malcolm Kenneth Gordon, St. Paul's School, Concord, N. H. As a part of the discussion of this topic the report of a committee to the Board of School Commissioners of Indianapolis was read by its chairman, C. E. Emerich, Indianapolis. General discussion followed.

The report of the Committee on a Six-Year Course was presented by Eugene W. Lyttle, inspector, State Education Department, Albany, New York. After reading the report, Mr. Lyttle moved its adoption, which was carried unanimously.

On motion of Mr. Stuart the committee was continued in order that it might make further investigation and report later.

E. W. Lyttle.—It became apparent from the discussions yesterday that the high-school principals here assembled strongly favor the cosmopolitan rather than the differentiated high school. The arguments advanced were founded not on theory simply but on facts and thoughtful experience. Fundamentally our high schools are political, moral, and social agencies. Incidentally they should train for vocation; but their largest function is training for life. Separation into technical, business, and preparatory high schools inevitably encourages class distinctions, causes loss of social sympathy, and is not conducive to good scholarship. Moreover differentiated schools make it far more difficult to correct mistakes, while differentiated courses render such corrections easy. Differentiated high schools also cause great loss of the students' time in travel to and fro. In view of these considerations, I have been asked by many principals to introduce the following resolution:

Resolved, That it is the sense of the Secondary Department of the National Education Association that the building of differentiated high schools should be discouraged and that the introduction of differentiated courses in all large high schools should be encouraged.

The resolution was unanimously adopted.

The Committee on Nomination, consisting of the following: Edward L. Harris, Chairman, W. H. Stuart, E. W. Coy, reported as follows:

President, J. Stanley Brown, principal of Township High School, Joliet, Ill.
First Vice-President, S. A. Underwood, principal of Westfort High School, Kansas City, Mo.
Second Vice-President, Wm. H. Smiley, principal, East Side High School, Denver, Colo.
Secretary, Solomon Weimer, assistant principal, Central High School, Cleveland, Ohio.

The report of the committee was adopted.

The department then adjourned to meet in round-table conferences in the afternoon.

Solomon Weimer, *Secretary*

ROUND-TABLE CONFERENCES

Mathematics: Leader, H. E. Slaught, professor of mathematics, the University of Chicago.

The following program was presented:

1. The Teaching of Algebra in Its Relation to the Present Educational Trend—Thomas K. McKinney, professor of mathematics, Wesleyan University, Middletown, Conn.

   Discussion by John C. Stone, associate professor of mathematics, State Normal College, Ypsilanti, Mich.
2. The Teaching of Geometry in Its Relation to the Present Educational Trend—William Betz, teacher of mathematics, East High School, Rochester, N. Y.

   Discussion by Richard S. Beardsley, teacher of mathematics, Englewood High School, Chicago, Ill.

It was moved and carried that the chair appoint a committee to combine the various syllabi on geometry into one.

Allen H. Hitchcock, *Secretary*

Foreign Languages: Leader, Ernest Wolf, teacher of German, McKinley High School, St. Louis, Mo.

The following program was presented:

1. Objective Aids in the Teaching of Modern Languages. Paper by Mr. Wolf. Discussion by Adolph Kramer, teacher of German, South High School, Cleveland, Ohio.
2. The Teaching of Ancient Languages by Modern Methods—W. L. Carr, teacher of ancient languages, Shortridge High School, Indianapolis, Ind.; Julia Benson, teacher of Latin, Yeatman High School, St. Louis, Mo.

English: Leader, Ernest C. Noyes, teacher of English, High School, Pittsburg, Pa.

Papers were presented as follows:

1. Ideals versus Realities in High-School English—MR. NOYES; SARA VAN METRE, Manual Training High School, Kansas City, Mo.
2. Some Practical Problems in the Teaching of English—ALFRED M. HITCHOCK, teacher of English, High School, Hartford, Conn.; GENEVIEVE APGAR, teacher of English, The Teachers College, St. Louis, Mo.

General discussion followed.

MILTON FRYE, *Secretary*

SCIENCE: Leader, MILO H. STUART, principal of Cleveland High School, St. Paul, Minn. Papers were presented upon the topic: The Laboratory Notebook—What Should It Contain and How Should It Be Made? as follows:

Physics—William M. Butler, St. Louis, Mo.
Botany—Milo H. Stuart, St. Paul, Minn.
Zoölogy—Tracy H. Holmes, Chicago, Ill.

General discussion followed each paper.

ERNEST E. RAU, *Secretary*

PAPERS AND DISCUSSIONS

THE HIGH-SCHOOL SITUATION

GILBERT B. MORRISON, PRINCIPAL OF MCKINLEY HIGH SCHOOL, ST. LOUIS, MO.

The secondary school on account of its position in our educational system, its intimate relation with the elementary school on one side, and the college on the other, and on account of the demands put upon it as a fitting school for life, has become an arena of diverse opinions and ideas. These ideas embody social, pedagogical, and economic conditions which make the high school the main center for departure and differentiation.

Our opportunities were never so great as they are now—opportunities which come from the willingness of the people to be taxed for high-school purposes. This willingness is expressing itself chiefly in school buildings which mark great improvement in convenience, sanitation, and architectural effectiveness, and an attempt even to make them monumental in their appearance is not infrequent. With the universal consent of the people to be taxed for whatever is necessary for the support of the high school, has come the architect who has employed his talent in giving us buildings more convenient and more beautiful than we have ever known before. We have passed into what we may properly call the era of monumental schoolhouses. But there is still room for improvement.

The architect, exposed as he is to the temptation of emphasizing architectural effectiveness, has neglected certain well-known physical laws which, if observed, would supply to our buildings perfectly pure air. In the great improvement in ventilation which the past twenty years have witnessed, the point of bringing to the classrooms pure warm air in sufficient quantity has been reached, but it has not been properly distributed and utilized. Owing to this failure, we are still breathing vitiated air, highly diluted with fresh air, instead of utilizing the fresh air in an unmixed state. Within the past few years the principles of ventilation have been applied in the Capitol building at Washington, D. C., and within the past year in a church in St. Louis, Mo.

A systematic study of this question by this department might, it seems to me, do much toward stimulating a general interest in the direction of a much-needed improvement. I would suggest therefore the appointment of a competent committee to investigate this need.

The general situation in our high schools justifies a conservative optimism. Considering the vast increase in population, the correspondingly larger enrollment, the growing tendency to specialize, the extension outward of the course of study adding many new studies to the curriculum, and the large number of teachers needed to meet these growing demands, the quality of the work is probably as good as could reasonably be expected. We are, I think, safe in saying that our schools are better today than at any previous time in the history of this country. But this optimism should not blind us to our faults. Speaking generally, I would say that notwithstanding our careful grading and our complex machinery of organization, excellent as they are in their way, the improvement in teaching has not kept pace with the improvement in buildings. It must be confessed that the schools of today lack the vitalizing leaven of individuality. The school buildings of the past could bear no comparison with those of the present. This has been an achievement of wealth and architecture, but we find no such achievement in pedagogy. While good teaching may be found in certain places, we have an army of teachers, many of them college graduates, drawing a moderate salary, going through with the purely conventional processes of assigning lessons, hearing them, giving examinations, and measuring their standards by the number of pupils they fail to pass, teachers who are giving much attention to their subjects and little attention to their pupils. But where are our great teachers of today? Where are our Comeniuses, our Pestalozzis, our Froebels, or even our David Pages and our Horace Manns?

The conditions at the present time are, it seems to me, rather unfavorable to the development of the most effective teaching. The present social standard by which merit is measured by wealth has, to a considerable extent, permeated the schools and it has come to be the popular belief that the cost of a school is the measure of its efficiency. The crystallization of our schools into great systems has a tendency to reduce schools and school men to a dead level of characterless uniformity. We have in our schools thousands of teachers doing lifeless routine work because of their love for wife and babies, and their fear of the steam roller—teachers who, with the proper encouragement and freedom, would become really efficient forces.

Passing now from these general reflections on those fundamental conditions which form the real background of our work, permit me to refer briefly to some of the questions which are at the present time calling for solution, some of which will occupy the time of the excellent program which we have before us.

In the past few years athletics have occupied much time and care and conditions have, on the whole, been much improved. The solution has been sought chiefly through the Interscholastic League. On the value of this means of managing athletics opinion is divided, but the weight of argument and opinion, as indicated by the answers to a questionnaire sent out last September, seems to be on the side of confining athletics to the home field.

Another question now engaging the attention of thinking principals and teachers is that of the class recitation—whether it has not to some extent become an agency for examination rather than one for teaching and for assisting pupils when and only when they need it. The aim of education is to place the pupil in an atmosphere favorable to his natural growth, with conditions favorable not only for receiving needed help but also for the proper stimuli for self-help. In full view of this aim the recitation is on the witness stand to answer as to its real efficiency and proper function, and as to how much of the pupil's time in school it should claim.

The problem of overcrowded courses has been,.since the outward extension of the curriculum was forced upon the schools by the progress of the times, one which has caused no little concern in the minds of those who had been taught to believe that certain formal culture studies were necessary to all pupils seeking an education. The complete and correct answer to this problem has not been reached, but there is an opinion rapidly gaining headway that no study necessarily has any exclusive claim to culture value, and that any study, or piece of work, may have this value if pursued in the proper way and in the proper spirit. The best thought seems now to be that a liberal education does not consist in so much of this or that, but in the state of mind which a piece of work inculcates, not so much in the value which the knowledge of language, mathematics, science, or manual training possesses per se, as in the mental attitude which results from their pursuit. This thought ascribes to a liberal education proper inclinations as well as useful knowledge—an inclination to read, an inclination to study, an inclination to work, an inclination to do right and to be just, an inclination to live and let live, an inclination toward efficient service to self and to others. With this view of an education and of culture, the difficulties arising from a crowded course of study disappear. The case is no longer one of overloading, but one of proper selection, of adaptation to the needs of the varying tastes and powers of the individual pupils.

Permit me at this time to call your attention to the condition of music as it exists in the high schools of this country. Answers to questions on the subject reveal considerable diversity of theory and practice, and there is a general feeling that it is not what it should be. In a few cities it is made compulsory and is chiefly confined to routine chorus singing of songs learned by rote; in others it is not required of boys; in others it is made optional, taught in classes and graded. Now, important questions arise here. Music being a fine art of a refining and uplifting character, should it not be made universal and carried into the soul of every boy and girl? If so, can it be done? If a boy can sing and doesn't want to sing, should he be made to sing? If so, what will be the nature of the soul product? If a boy can't sing and wants to sing, should he be allowed to sing? If so, what effect will it have on the souls of those who listen to him? If a boy can't sing and doesn't want to give daily demonstration of the fact, should he be made to do so? Should a pupil who doesn't sing be compelled to sit and listen to others sing when he wants to study? Is the assumption that he is absorbing soul nourishment under these conditions sound? If a teacher of music can not keep the absorbers in order while the singers pour in, should other teachers of the school be called in to hold the boy? What is the general effect of this on the school? Should music conditions in our schools be maintained which only one teacher in a thousand can properly meet? Or should our requirements be made to fit what music teachers have demonstrated their ability to do? Why should a public-school teacher be called upon to pursue a method entirely different from that which he practices in his private classes? Is the aim of high school music for spectacular purposes, or for the development of the pupils? Is it the proper function of the public school to teach music to those who want it as other branches are taught? If not, why not? These are a few of the questions which should be carefully considered and answered, and I would respectfully suggest that a committee of five be appointed to investigate the music situation and report at the next meeting.

But the most important problem which now confronts the high schools of this country is that of industrial education. On this question, I have expressed my views in a recent article in the *Manual Training Magazine* and I here quote a few extracts:

> It is now becoming evident from the widespread discussion of industrial education from many sources that this country is looking to it for other purposes than that of general education. Associations for the promotion of industrial education have been formed. Complaints that the public schools are still too mediaeval in their methods are heard from certain quarters. Many schools are making their appearance: "Trade Schools," "Technical Schools," "Foundations," "Arts and Crafts Schools," "Industrial Schools," "Textile Schools," "Poor Boys' Schools," "Manual Labor Schools," "Grade School Manual Training Schools," "Manual Training High Schools," etc., etc., are being built by enthusiastic millionaires. These schools represent an endless variety of types each revealing the point of view of its founder. Some claim that a school to have any value should be fully equipped for technical instruction; others that technical training is worse than useless. A certain class holds that all book learning should be limited strictly to what a boy needs in the shop. Another class, that theory and practice should go hand in hand. A few still believe that no manual training in school is essential, even for those who will follow mechanical pursuits, holding that the humanities "make men," and that a man will pick up his trade when he needs it. But the belief that manual training in some form has come to be an essential in public education is becoming almost universal.
>
> Now, in each of these views there should be a grain of truth common to all the rest. We should be able, if we can discern this common element, to get a perspective view enabling us to foresee the relation of industrial education to the high school of the future. It seems to me that this element is not difficult to find and that it may be expressed in very simple terms. I believe it might read something like this: Every American boy is entitled to all the learning he is capable of taking. This learning should be both mental and manual and should be made as practical as possible. In other words he should, to the extent of his ability, come to his own in the heritage of the theoretical knowledge of the race in so far as he can by training be taught to embody this knowledge in purposeful practice.

This conception of the problem calls for great breadth and flexibility in our schools and in our curriculums. If we are to make it possible for every boy to receive his birthright, the flexibility and versatility of our schools must be commensurate with the endless diversity of talent and opportunity. The boy who can go no farther than the eight elementary grades should have along with his three R's all the manual training of the practical sort that can be worked into a well-balanced curriculum. If the limitations placed upon him by poverty or a paucity of natural endowments condition him to a life of manual labor, then that labor should be made as skillful as possible; for this reason manual training of the plainest sort should be offered through the grades. It should consist of those simple fundamental processes which underlie the mechanical trades and should so far as time and the powers of the pupils will permit be carried forward in the artistic spirit. So far as it goes it should be in the direction of community industry. Differences in talent should be recognized from the start and each boy's work adapted to his powers. If he is dull in books and unable to keep up with his class let him do what he can and give him more of the manual training. If he shows no promise of skill in the use of tools give him less manual training and more books. Find the boy and then proceed to build upon him; and in dealing with him keep close to the border line between what he knows and what he does not know—between what he can do and what he can not do. It is the discovery of this line and constantly keeping it in view that constitutes good teaching. Boys treated in this manner through the elementary schools will be able to earn an honest living in factory, shop, counting house, or department store.

When the boy who by reason of ability and opportunity reaches the high school the essential nature of the process well begun in the grades should not change. It is still a process of keeping to the border line between what he can do and what he can not do, still a process of proper selection and adaptation. This adaptation will be made possible thru intelligent differentiation. Fortunately this differentiation will not mean revolution. It will only mean a careful study of the past development of our schools, and of the present demands. The suggestion of the introduction of the industrial or trade school idea into our high school is not new if we consider the question from a generic point of view. Ever since the establishment of public high schools in this country about seventy years ago they have been undergoing change and this change has always been one of differentiation and specialization of function. Even the names which have been given to different groups of studies called "courses" indicate clearly enough that these groups from which pupils of different bent may choose are intended for different purposes, and these purposes are economic. Latin and Greek were at first placed in the curriculum because they were supposed to fit students for service in the learned professions. Science was introduced to meet the demands of an era of scientific activity and invention. The commercial studies, typewriting, bookkeeping, stenography, and office routine were added to the curriculum in answer to the demands of trade and commerce.

With the growth of large cities came manual training to supply the motor activity of which the absence of country life had deprived our boys, and to counteract the one-sided influences of an education exclusively bookish. These facts in the history of secondary education furnished but one answer to the question as to whether the demand for industrial education should be met in the high school. It remains only to ascertain just what shall be the nature of this, the next differentiation. In reality the problem is not so difficult as it appears, inasmuch as the manual training already in our best high schools furnishes the kind of training needed—a training which certainly contains the underlying principles of many industries. We have only to add to the courses we now have by including more of those processes employed in the various trades. The selection of these processes will have to be carefully made with the assistance of practical men representative of the industrial community. Along with these additions there should come a greater latitude and flexibility in making out individual programs for pupils of varying ability and inclination—a flexibility ranging between programs almost wholly academic to those almost exclusively manual. All studies and exercises should be elective in the sense that principals and directors may give each individual boy what he needs and what he is able to receive, regardless of traditional standards. We must adjust our schools to the principle that it is just as necessary and legitimate to help a boy to a trade as it is to help him to a profession—that training for citizenship is putting each and every boy at his best, and keeping him there as long as practicable.

The highest and best type of secondary school is cosmopolitan, and contains under one head all branches which have proved their right to a place in high-school curricula. The new differentiation which will sooner or later be made that will provide a certain amount of training for industrial ends will probably take place as others have done, and become an incorporate part of the school which will continue to retain its cosmopolitan character still preserving a perfect social unity and equality between all classes of children regardless of the composition of their individual programs. That the problem of industrial education will be worked out in the high school seems certain: first, from the observed tendencies of the past to differentiate the work and to add to the curriculum in conformity to changing conditions; second, that the age of the pupils just passing from childhood to manhood is most favorable to it—an age most suitable for those bodily exercises requiring dexterity and strength; and third, that the work is already begun in the well-chosen processes and exercises as now carried forward in finely equipped shops. The gradual addition of more shops, more equipment, more processes, and the granting of a larger flexibility in the choice of work should solve the problem.

A SHIFTING OF IDEALS RESPECTING THE EFFICIENCY OF FORMAL CULTURE STUDIES FOR ALL PUPILS

J. REMSEN BISHOP, PRINCIPAL, EASTERN HIGH SCHOOL, DETROIT, MICH.

After getting out of it, so as to be able to view it from an independent standpoint, Arthur Christopher Benson said:[1]

> For a good many years I lived a busy and fairly successful life as a master at a big public school. I will not dwell at length upon this, but I will say that I gained a great interest in the science of education, and acquired profound misgivings as to the nature of the intellectual process known by the name of secondary education. More and more I began to perceive that it is conducted on diffuse, detailed, unbusiness-like lines.

Mr. Benson's arraignment of English secondary education in a general way applies to secondary education in this country. Having no recent pronouncements at hand concerning our own secondary schools, perhaps we may take President Hadley's words concerning our colleges as applying also to our secondary schools:[2]

> There is no question that the development (of the American College) was salutary, that the American colleges in 1908 did larger and better work than they would have done if, like the English university of today, they had followed more conservatively the older lines; yet, still, we are in perpetual danger in three directions from over-specialization, from dilettantism, and from pedantry.

Certainly, if we simply reproduced from generation to generation the culture attained, not adding or detracting, the result would be a Chinese uniformity. If cruelty and suffering, vice and crime could be eliminated in any scheme and that scheme made perpetual, no one could find fault. But man is only at the best relatively free from physical and moral ills; by change alone he seems to progress. To stop change would be to cut him off from the hope of something better. It is advisable not to make unchangeable gods of anything. Latin and Greek, that delighted, satisfied, and to some extent trained, aesthetically and morally, a large part of the people at one time, lose, in time, their vital force and must be replaced by something containing what seems to me a different form of vital force.

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[1] "From a College Window: The Point of View."

[2] Speech at Bryn Mawr Commencement, June 7, 1908.

A rhythmic movement is one of Nature's mysterious methods. Each generation of men must pass, in part consciously but for the most part unconsciously, through the cycle of the race's experience. Then each generation adds something to that experience and to some extent determines what the experience of the succeeding generation will be. True education makes the pupil more significant. To do so, it must evidently be sufficiently reminiscent of the past, vitally related to the present, and in a developmental attitude toward the future.

It is not unnatural that the instruction of children in the lore of the past should have seemed the best method of educating them. Education was at first principally, one might almost say, only, concerned with a leisure, or at any rate, privileged class. There was no such idea as yet conceived as that of attempting equality of intellectual opportunity. Education was a means by which parents transmitted to their children the privileges and advantages which they themselves had wrested from the mass of the people or which they had inherited. If education was to remain a mean toward this one end, no better material could be found than the literature of preceding civilizations. This literature was the crowning and permanent glory of the past—the sole surviving effect that had in it the possibility of going on unchanged forever. To study it and absorb its spirit was to put off provincialism for the time at least, and to join the great band of those who have viewed from a great height the panorama of humanity in all its hopes, aspirations, and achievements.

When education came to be viewed in a different light, i. e., not as a means to preserve privilege for the few but to extend opportunity to all, irrespective of rank at birth, the old means was found wanting. Many of those, in fact the far greater part of them, who were to be educated were now without inherited wealth or the position that commands in inscrutable ways a certain financial support. At a comparatively early age these young people must stand behind the counter or at the bench and make a living by manual labor of some sort; there was no escape from this. Consequently, when the traditional material was offered, it was practically refused. A few kept at school; the rest left at an early age. The state was supporting a sham; for this education was pretending, at common cost, to equalize opportunity. In actual fact, it was giving at public expense to those able, or who could be compelled to pay for it, what before they had paid for. The mass of the community remained little affected. Those who had advocated universal education as the at-last-discovered panacea grew uneasy and lukewarm. The defect was not at first clear, but it soon became evident that true education for the mass of men must be vitally related to present-day activities.

In the development of the educational program it is natural for the same warring forces to appear that are at work thruout our political and social fabric. Democracy, all over the world, but especially in America, is today confronted with what possibly may be its final problem. By subtle but effective means a leisure class founded upon special privileges or wealth, or more often upon a combination of these things, has been formed and maintained in every community of considerable size, at some time in its history. The democratic ideal, now voicing itself with greater insistency every year, would wrest from the privileged class its most permanent asset—the privilege of transmitting its most distinguishing characteristics to its natural heirs and of preventing the natural heirs of other classes from acquiring these characteristics. If we refuse the holders of wealth and privilege—the leisure class—the vantage ground of intellectual cleavage, we threaten the existence of that class. It is self-evident and not necessary to prove that all so-called higher education was at first jealously fashioned in such manner as to exclude those who had to aim, from childhood, at wage-earning skill.

When, after vague beginnings, the extraordinary device of universal education for all the adolescent young of this nation issued as a full-fledged experiment, the old material of intellectual and aesthetic training, the heritage from the dominion of the privileged few and the practical slavery of the many, being all that existed, was used. Latin, Greek, mathematics, and a modicum of science, with English in some makeshift style, formed the course of study offered to all young Americans who had completed the elementary grades. The leisure class, dimly perceiving that their privileges were threatened, tightened the barriers into the colleges and watched the result—and a strange result it has been.

The college primarily stood for the production of a leisure class. The ideals of a democracy call for a different aim in education, and these ideals, to triumph, must absorb or eliminate other aims. The aim of the college, as first constituted, and the aim of democracy are fundamentally adverse and, to some extent, mutually destructive. The leisure-class idea permits college teachers to trade on custom, caste, the assumed and guarded privileges of cliques, and other influences diametrically opposed to the underlying principles of democracy. To yield to these influences would be to abandon the democratic ideal. Our fathers—we ourselves until now—have been slow to realize this dilemma or, at any rate, have been slow to acknowledge it.

The ideals of democracy are not to be abandoned without further struggle, and today the fight centers on public secondary education. Deny the opportunity for continuity in the college of all work in the secondary school of recognized value, and you at once create privilege or caste. The manual-training high school as distinct from the high school pure and simple, if it involves a limitation of possibilities for continuity of work in higher institutions that have full recognition as colleges, should not be encouraged by any upholder of democratic ideals. The only safety for the democratic scheme is the removal of all barriers, with caution in the introduction into the course of material beyond the scope of the means at hand and the time at the disposal of the pupils.

The world of necessity, as it grows older, accumulates too large a mass of memorized material; some of this must at times be sloughed off, now in this way, now in that. It is probably not too rash to assert that public opinion, or the portion of it enlightened on this point, does not now sustain the claims of any subject of study on disciplinary grounds alone. The element of sustained attention to orderly sequence, regularly recurring, is necessary to the mastery of any bodies of related facts such as are properly subjects of study. The part of the Universe which we inhabit is so constituted that anything in it is immediately and more or less logically related to many other things. Everything in it involves, more remotely, a vast number of things. The investigation of anything can be made disciplinary if pursued from the standpoint of its general relations; if pursued from the standpoint of the investigator's needs and interests, it is practical. More and more are we coming to believe that subjects to be taught to the normal, ordinary adolescent must combine these qualities, or the attempt to teach him be comparatively ineffectual. If either, the practical element should predominate. Public opinion has veered away from what had been accepted upon the mere assertion of intellectual ascetics—that the very absence of interest, when subjects of investigation are presented upon abstract or general grounds, argues only a necessity to force an apparent interest or consign the pupil to intellectual perdition.

When all is said, formal culture studies resolve themselves into Latin and Greek. Our art heritage and to a great extent our heritage of speculation of all sorts is Greek; our heritage of political organization and of elaborate systematizing of human relations is Roman. For a reason not far to seek, it was true, up to four hundred years ago, that no one could be a thoroly cultured person without a knowledge of Latin. All the books of wisdom were written in that language; the church knew no other tongue as an official language. The vernacular everywhere seemed to have in itself no elegance and permanence. Latin writings were translated into it merely for convenience but without any idea that the translation would have any lasting literary value.

So fixed become men's habits, especially in what concerns the training of the young, that the rise of a genuine and intrinsically noble literature in French, English, and German, altho this later literature contained the significant material of former literature, had apparently no effect upon the accepted methods of nurturing or attempting to nurture the minds of the young men who belonged to the privileged class of the European nations. I mean that the fact of Shakespeare's having written *Macbeth* made it none the less imperative that a young Englishman should have read the *Hercules Furens* of Seneca. The Romans themselves were not so hidebound. The study of Greek declined in Rome after Rome itself had produced a native, if not an original literature. The German showed himself of the same temperament, in this regard, as the Englishman. He still labored partially to master ancient drama when his own inspired masters of poetry and poetic philosophy had given him native material as good in quality and infinitely more suited to his type of mind and to his physical environment. The French held Latin in closer relation to themselves, both linguistically and in inherited traits of character. The impress of the Roman on the Gaul was indelible; on the Anglo-Saxon and on the Teuton only such as his obstinacy chose to keep it.

Unless Latin and Greek,[1] with all their close relation to our past development, can show a certain and sufficiently intimate relation to our present life, that causes them to have a sufficient element of immediate, practical interest and value, they must go into the limbo where reside Hebrew, Old Romance languages, Old High German, etc., etc. If geometry and algebra cannot relate themselves intelligently to immediate natural interests, some other classification of mathematical facts must and will be found that will do so. Algebra that tells about the heads of whales will be reserved for those who are zoölogically inclined. The rest of us will solve problems concerning the value of food rations, the facts of physical science, and other matters that at least have some natural appeal to our interest in the result of the solution.

When the process of cutting loose from the old régime of secondary education had begun, it was seen that ideals respecting the efficiency of formal culture studies for all pupils had radically shifted. There seemed to be a widespread feeling that such efficiency had been experimentally proved to have been fancied and never real. Interest, founded upon actual environment and continually broadening its own environment, and this broadening of environment again widening the scope of interest, this noble and generous process is first, last, and all the time the only process universally applicable that will induce all normal minds to undergo training and enrichment.

Only general faults have to be guarded against: according to Benson—diffuseness, too much detail, unbusiness-like method; according to Hadley—overspecialization, dilettantism, and pedantry.

And this question, large as it is, is involved with far larger considerations. Out of the seething cauldron of modern life may be emerging not a new principle in conception but a new principle in actual acceptance. May it not be true that we now believe that every human being, as a sentient creature born into our companionship, must be protected from the greed of his fellows—whether it be greed for superior wealth or superior aesthetic environment; in other words, that upon the race devolves the solemn duty to provide first for the completest possible development of every child from the hour of birth to that of death under the best possible conditions, before natural advantages of individuals are given opportunity to develop and assert their acquisitive power? Race charity, supreme, triumphant, is perhaps to take the place of all private benevolence and in its exercise exert the wisdom of the ages, enlightened with the new discovery, a sacrificing love capable of the greatest sacrifice of all—that of a natural advantage over one's fellows.

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[1] The great labor and fine acumen expended upon the language and literature of the classics has produced results that bring the science of these tongues into the category of the exact sciences. Perhaps the study of them, or of one of them, should be offered as an alternative for one of the natural sciences.

The colleges will follow suit by accepting for entrance such part of the secondary work as they may choose, leaving the secondary curriculum to the skill and conscience of those whose business it is to fashion high-school work to the needs of each community which the school serves. All other subjects must perforce be begun in the college—all this will be a matter for the skill and conscience of boards of overseers, trustees, regents, or whatever they may be called.

It is a forbidding but natural phenomenon of American life that there should have been formed an educational clique, consisting of those who had been classically trained with the intention of giving instruction in the classics. This clique is difficult of entrance and has been hedged about by such artificial barriers as the German degree and the cant language developed by daily use of the grammatical and rhetorical phraseology of classical research. The members are in awe of their own learning, which is considerable, and selfishly determined to hold their privileged position which, despite modern trends, they still possess. It matters not to them that the majority of the human race have no desire and no capacity for the study of dead languages. A love of the human race transcending the love of certain graceful and interesting things that can be made to environ the life of a portion of that race is a conception beyond the narrow souls of these people. They devise subtle methods by which the elect (those with interest and capacity for classical study) are selected and invested with certain privileges, or with a certain prestige which is no less real for being an ingenious fabrication. Through a strange tyranny called college (or university) domination, they still force the schools to do their will, at the peril of having the pupils of the schools refused entrance to the opportunities for advanced study.[1]

The purpose of this paper being to deal with tendencies, theories, movements of the *Zeitgeist*, and other such intangible aspects of the ideal, it would be foreign to our purpose to mention schemes and panaceas proposed to set at rest the educational questionings, and thru this, the social unrest of our day. There is much promise in such schemes as the co-operation plan proposed by Dean Snyder of Cincinnati, whereby half the time in alternate weeks is given by pupils of schools above the elementary, over fourteen years of age, to work, under sanitary conditions, in the actual industries and businesses of the community. In this scheme, every young man and young woman is a producer, an acquirer of practical skill, a subject of developing agencies of the purely intellectual type—all at the same time. There is at least great promise in such courageous attempts to grapple with the problem.

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[1] In this they are no greater sinners than their mathematical and scientific brethren; but the example ot tyranny over secondary schools was set by the classical men and indicates their presumptuous attitude toward heir fellow-men outside their sacred clique.

It is not surprising that even the onus of having been inconsistent must be borne by some who are advocating a frank relegation of formal culture studies to the same plane as all studies. Loyalty to the old gods is not a crime; nor is it a crime to abandon the old gods to their fate when the new gods have plainly supplanted them. There is enough modern material, well digested and of sufficiently broad interest, to make a course of study for nearly every type of mind. To supplant any of this material with antiquated subjects is to sacrifice reality to an idea, which should recommend itself to Americans least of all peoples.

DISCUSSION

David S. Snedden, Teachers College, Columbia University.—I take no exceptions to the excellent paper and the able discussion. I wish only to emphasize some of the points brought out. The American people have always been disposed to support cordially all efforts at secondary education. But this association should formulate a better and more comprehensive definition of secondary education. As I see it, secondary education is developing on a very great scale and its content is being greatly modified. We should call all kinds of the education of youth in the adolescent period "secondary," and make no such distinction as "vocational," "industrial," "technical," "manual training," "trade schools," etc. Make your courses, their content and quantity, fit the need of the individual pupil whether that course shall extend over two, four, or six years. Let the boy have a chance to develop himself.

It is the right time now, in my judgment, for the American schoolmaster to assert himself and break loose from the traditional lines of education. We should all get together and cut loose from college domination and all other domination.

Louis P. Jocelyn, Ann Arbor, Mich.—I am sorry to see no college man defend Latin and Greek from the attacks made upon them today. I, myself, was slow to take up their defense, as my especial line is mathematics, but, as secretary of the Schoolmasters' Club of Michigan, I feel that some reply should be made. In my judgment Latin and Greek are declining because of the intense teaching of bare forms and omitting the literature of these tongues. Teachers of physics should take warning from the fate of Latin and Greek or that subject will meet a similar fate. Too much time is being spent upon the technical part of the subject, while the phenomena of nature are overlooked. The same is true of biology and all other sciences. When I was a boy we used to ramble through the woods and find life in its natural state and environment, but now it has become a wearisome looking through microscopes and making notebooks. The pendulum has swung too far against Latin and Greek in some quarters. There is a feeling all over the world that Latin is a good thing. I believe the good, hard subjects of mathematics, Greek, and Latin are important and necessary to mind development. The planting of a pea and watching it grow does not always teach the lesson expected. The Indians watched corn grow for centuries without developing mentally. Do not make the mistake of making everything easy for a child. He should have some hard subjects to tackle.

It is true, however, that thousands of boys could be saved every year by giving them something they can do, but I would suggest that not all boys should be put into manual-training courses. Some must be left to become future teachers of mathematics and other subjects.

In regard to the second paper—the percentage of failures in the McKinley High

School is certainly very low. It must mean superior management on the part of its able principal to secure a result of but 7 per cent. of failures.

I wish that all men who teach were fathers. I became a much better teacher after I had a child of my own. A father sees in every child somebody's darling and treats the child with greater sympathy and better understanding.

MR. COBALT, Hamilton, Ohio.—We are all gratified, I am sure, to know that there are high schools where the percentage of failures is so low as that at the McKinley High School. Where such results are attained, there must be some unusually fortunate conditions for pupils and teachers. Much may be accounted for in heredity and environment. Many pupils reach their limitations in grammar-school work and cannot successfully do high-school work. Some pupils go to high school who should not, and necessarily fail in their effort. Sometimes failures occur because of inefficient instruction, due to large classes. Teachers who have thirty, forty, or even fifty pupils in a class obviously cannot do good work, nor can a teacher keep up a high grade of instruction through more than five or six periods in a day. Every teacher should have at least one rest period to devote to deficient pupils and laggards, as is done in Springfield, Massachusetts. In the Woodward High School, Cincinnati, two or three extra teachers are employed who give their time wholly to delinquent pupils, with excellent results.

MR. COOK, of Pennsylvania.—There is too large a number of failures in the first year of high school. It seems to me that more attention should be given to incoming classes —explaining to them more fully how to take up the work, using the recitation in part as a study period and showing them how to study.

HERBERT C. WOOD, East High School, Cleveland.—It might be of interest to know of an experiment in one of the Cleveland high schools to ascertain from the pupils themselves their opinion of the reasons for failure in the high schools. A series of questions was submitted to the pupils, and one of these questions related to the cause of failure. Ninety per cent. answered that it was because they did not study hard enough. The remaining 10 per cent. attributed it to ill-health and other causes. It may seem a little ungracious for me to speak of the percentage of failures in this high school the past year; but I will venture to state a fact which may seem unusual: while no special methods have been resorted to to bring up delinquent pupils, less than 6 per cent. failed during the past year. Now that the school board has made special provision to care for these backward pupils, perhaps there will be no failures next year.

WELLS L. GRISWOLD, superintendent of schools, Youngstown, Ohio.—The way to deal with backward pupils is for each teacher to have the time to care for her own delinquent pupils. It is not true, at any rate, that every pupil should pass every subject in each of the four years, and that there should be no failures. Such results would tend to lower standards and weaken scholarship. Going over a subject a second time is not always a bad thing. In fact, it is sometimes the very best thing that could happen to the pupil, and teaches him thoroness and application.

HOW SHALL WE ASSIST OUR PUPILS WHEN AND ONLY WHEN THEY NEED IT?

H. E. KRATZ, SUPERINTENDENT OF SCHOOLS, CALUMET, MICH.

Our topic for discussion was originally worded as follows: Do you believe that the method of class recitation, generally in vogue in our high schools, neglects the individual needs of pupils and is in any way responsible for the many failures to pass in their studies? Are pupils usually assisted *when* and *only* when they need it? If not, what is the remedy?

It is evident that the Committee on Program did not intend that the writer of this paper should simply give his opinions and conclusions, but that he should also ascertain how representative high schools were attempting to solve this problem. With this in view, a "questionnaire" was sent to sixteen representative high schools, chiefly located in the Middle West, asking for the percentage of failures; whether they were increasing or decreasing; the causes of such failures; and the measures taken to remedy them; the proportion of time devoted to class and individual instruction; how "drowning pupils" were treated; how and to what extent individual instruction was utilized, and what efforts given to training pupils into right habits of study.

The percentages of failures as given in these replies averaged 22 in all subjects, with an average of 28 in algebra; 24 in geometry; 23 in Latin; 20 in chemistry, English, French, and physics; 18 in German and history.

From one of the largest high schools in the West came a very carefully compiled summary of failures according to grades, and as it fairly represents conditions generally, its summary is quoted:

The percentage of failures in all subjects in ninth grade is 31.1; in tenth grade 21.4; in eleventh grade 19.6; in twelfth grade 13.2. The average percentage of failures in all the grades in this high school is 23.5.

In this same school the leading causes of failures are: first, indifference, reaching an average of 32.8 per cent. of those who fail; second, incapacity, with an average of 24.6 per cent.; third, poor preparation, with an average of 24.3 per cent.; and fourth, ill-health, with an average of 16.9 per cent.

Among other causes, that of "improper habits of study" is frequently mentioned. "Lack of concentration," "not taught to think for themselves," "lack of thoroness," "too little parental co-operation," "too little home study," "too much society," "doubled work," "classes too large," "teachers failing to reach pupils in the right way," are other causes mentioned.

The means made use of to reduce the number of failures are not novel, but there is evidenced a feeling of growing responsibility for such failures and a greater desire to lessen them. Nearly all the replies indicate that chief reliance in bringing up backward pupils is placed upon individual help, and that this help is given before or after school. Some schools provide open periods for consultation. A few feel at liberty to provide for some individual instruction in the time usually devoted to class instruction. There are also indications that more attention is given to the formation of right habits of study, by studying at times with the pupils in the preparation of an advance lesson and making out programs for home study, and that teachers are more alive to the need of careful study of the slow pupil, his habits, environment, tastes, ambitions, and ideals.

A comment from a leading high-school principal in reply to the question as to measures taken to reduce failures we wish to quote, because it raises the query as to what is the wisest attitude in treatment of high-school pupils. Will the somewhat exacting and unsympathetic attitude manifested result in the greatest good to the greatest number? We quote, "We have no pet scheme, method, or panacea; yet, I have no hesitation in affirming that we are using sustained and systematic efforts to save the waste of inefficient effort, but rather by the method of elimination and by directing the student to more promising fields of activity than by wasting the energies of the teaching force upon incapacity."

The replies to the question concerning the proportion of program time devoted to class and individual instruction indicate that, outside of laboratories, class instruction monopolizes more than nine-tenths of the school hours.

The time devoted daily to individual work outside of school hours averages about one hour. Some schools set aside a half-hour for individual instruction before the opening session and the same time after closing in the afternoon.

The replies to the following question are varied and interesting: In class instruction, when you discover that a pupil is beyond his depth, do you keep the rest of the class waiting until you help your "drowning pupil" ashore, or defer the helping process until later? If the latter, when and how do you give help?

The general practice is to defer the helping process until later. The following are characteristic replies: "Let the drowning pupil sink after a reasonable effort at rescue." "Let him drown and help him out afterward." "Indeed I often keep the class waiting to show them how to help a drowning person ashore—thereby showing the class that the danger of drowning was not so great as it seemed. Fear or timidity is often the cause of not 'getting on swimmingly.'" "The secret of presenting a subject lies in getting the student's point of view and then base your exposition on the facts he already has at his command. Frequently this is merely a matter of review of fundamental principles temporarily lost sight of by the student, but which, if rapidly run over by the teacher, will set him on his feet again and he who thought he was drowning is enabled to wade out without further assistance."

Compare the sympathetic tone of this last statement with the one which follows. "I don't like this figure of speech that puts the responsibility of saving individuals with such tremendous emphasis upon the teacher. The class is the unit to be saved. Responsibility of the individual to his little social group is the feeling that has educated mankind. Pride in emulating the strongest and best in your class is what saves you; one must feel that one cannot get left behind, and that one deserves to get left behind, if he cannot save himself."

An extreme form of individual instruction was presented in question eight as follows: In the recitation period, instead of conducting a class recitation on the lesson previously prepared, how frequently do you assign a lesson in advance for immediate preparation and then devote your whole period to bringing up pupils in arrears by means of individual instruction?

This plan met with very general criticism, but those who criticized most severely, labored under the misapprehension that this individual instruction was to be made a regular and frequent feature of the daily program, when it is only intended to be used on such occasions when pupils plainly need individual help. A leading principal says:

> I believe that more opportunities might be profitably offered by the state along other than strictly academic lines, that would invite application where the task fits capacity. This would draw off from classes many whose presence now swamps scholarly standards. Education of every sort should be for those who have a real desire for it. I believe it time to cease over-anxiety concerning those who are now encouraged to rest content with the strenuous efforts made in their behalf by teachers.

Numerous commendations from those who have tried the plan are given, like the following: "In attacking a new subject, I find it very profitable;" "The plan needs close watching, but is advantageous;" "It benefits the slow pupil;" "It enables me to see pupils at work, to observe their methods, aptitudes, difficulties, the actual amount of work a certain assignment requires for various pupils. The pupils reveal themselves in their attitude toward their work;" "I seldom find a pupil who cannot *catch up* if he has the right kind of individual help from the teacher;" "The exact difficulty of the pupil is better appreciated by the teacher. The teacher's personal force is increased by direct contact with the pupil. The pupil is made to feel his own individual responsibility for the lesson. This feeling is sometimes lost in large classes. From close personal contact a closer sympathy prevails between pupil and teacher."

But the most conclusive answer as to the advantages of individual instruction in lessening failures comes from the McKinley High School, St. Louis. A summary of failures by subjects is furnished,[1] which covers eight semesters. The percentage of failures the first semester of this record shows an average for the entire high school of 16.55 per cent. The last semester, four years later, shows an average of only 7.5 per cent. of failures, or a decrease in four years of over 9 per cent.

This remarkable reduction to less than one-half the former failures, according to the positive statement of the principal, "is largely due to individual instruction and a constant effort to help the weaker pupils." When it is recalled that the average of failures in the high schools generally reaches 22 per cent. or three times the percentage of failures where these more helpful measures are utilized, is it not evident that a vigorous protest should be made against this unnecessary slaughter of high-school pupils?

The replies to the question, What plans are you utilizing to train your pupils into right habits of study? do not present convincing evidence that this important field of work is being sufficiently cultivated. Many answers indicate that there is a crying need to train pupils into better study habits, but very little systematic effort is directed to this end. A few give talks on value of concentration, and on the habits of study of successful business and professional men. This very brief summary of replies received suggests some comments which we wish to make in concluding this paper.

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[1] See summary of failures in McKinley High School to be printed at close of this paper.

We recognize that the number of failures in high-school studies must vary greatly, but we firmly believe that the present average of 22 per cent. of failures is excessive. This means that nearly one-fourth of the work done in our high schools is so imperfectly done that it must be repeated. Such waste of effort in business would be regarded as ruinous.

The principal causes of failures according to the replies are indifference, incapacity, poor preparation, and ill-health. A few call attention to improper habits of study, lack of thoroness, not taught to think for themselves, too much society, too little parental co-operation, too little home study, irregular attendance, etc. These causes are well known and various remedies have been applied, but the percentages of failures are still excessive.

From this investigation, as well as from various other sources, we are led to believe that one of the most profitable fields to cultivate in reducing failures is that of individual instruction, and connected with it, more systematic training to develop right habits of study. Our investigations disclose a generous giving of individual help to backward pupils on the part of some high-school teachers, but in nearly every instance it is given outside of school hours, either before or after the regular sessions and largely at the expense of the teacher's time and strength. The strange feature about it is that so much value is attached to this individual work and yet it has so little recognition in the school hours and so little provision for its utilization.

It seems to be quite generally held that the class is everything and the individual nothing. Every energy of the teacher is bent toward acquiring skill in handling of classes. The limited amount of professional training, given high-school teachers, is exclusively directed to the development of class instruction, while individual training is ignored.

We heartily indorse Dr. Harris' views in regard to the inspiring influences, the superior advantages, of class instruction, yet as a means of rounding up backward pupils, a work that must occasionally be done in order to secure those superior class results, there is no other factor so potent as wise and skillful individual instruction.

Everyone is familiar with the fact that the pace of the pupil who is under wise individual instruction is often twice as rapid as that of a large class. In individual instruction the exact reaction can be brought about, the exact adjustment can be realized which sets the backward pupil on his feet, gives him confidence and strength, and makes possible a double-quick movement which regains for him his lost rank in the class.

But the objection is raised that the plan of individual instruction sacrifices much of class instruction and cannot therefore be introduced. Individual instruction is only to be utilized when the emergency arises, and that emergency arises when pupils are floundering beyond their depth. The teacher is the wise diagnostician, varying the daily instruction according to symptoms and not administering a fixed amount of mental pabulum according to unvarying class instruction methods. We believe that such emphasis has been placed on class instruction, that teachers outside of the laboratories generally regard it their duty to devote all the school hours to such instruction. Somehow class instruction has been invested with miraculous powers. Set it in motion and it will save all the pupils worth saving. It must have exclusive right of way during all the school hours. Apologies must be offered whenever there is the least divergence from this program. There is too common an impression among teachers that if class instruction has been skillfully administered, they have done their full duty and no criticisms can be justly made for a large number of failures.

But some teachers are so impressed with the value of this individual instruction that they provide for it outside of school hours at heavy cost to themselves in time, effort, and strength. Why not give it recognition in the program, and to the extent needed? Why frown upon its occasional and wise use in schools? Why not include individual instruction, sparingly administered if you wish, in the legitimate means for lessening failures and thus make it the duty of the teachers to plan wisely and carefully for such work?

There is a special technique which applies in individual instruction. So many teachers in their replies raised the theoretical objection that it develops dependence, indolence, etc. Is not that the fault of the manner of giving such instruction? Class instruction can be so presented that it will also develop dependence. In order to succeed with individual instruction, the teacher must know thoroly each of his pupils as an individual and not as a part of a class. He must discover each pupil's weakness and take the initiative in giving aid. That aid must be given by the development method. "The weak pupil is strengthened by helping him to help himself; direct instruction is forbidden." Such individual instruction instead of fostering dependence and indolence fosters confidence and energy and contributes to greater efficiency in class instruction.

We plead for a fuller recognition of the merits of individual instruction in the plans of high-school teaching, because it will afford better opportunities to backward pupils to recover lost ground, and provide better facilities for much-needed training in better habits of study.

From extended investigations into the habits of study of pupils, we are convinced that even in high schools the percentage of failures could be materially reduced by wise training in the art of study. There are heavy losses from unconscious mind-wandering, from lack of concentration, from memorizing words without grasping their meaning or seeing their application, from inability to distinguish essentials from nonessentials, from failure to think out relations between facts as they are acquired, from neglect to work out helpful outlines of the important facts, from failure to test degree of mastery of facts by thoro self-questioning.

The art of study is one of the greatest arts, and its mastery, or failure to master it, is fraught with momentous consequences to the pupil. There are those right beginnings, or ways of approach, which lead the pupil on to conscious power and mastery, and there are those misguided and futile efforts which end only in weariness and defeat. How a pupil studies is a matter of much greater moment than what he studies. Habits cling thruout life and shape it. Knowledge is often carelessly gained and easily lost. For a pupil to form bad habits of study, to drop into habits of dawdling over a subject, to fail to develop his powers of concentration, is to render subsequent school life a drudgery instead of an inspiration, and bars the doors to intellectual pursuits after school days have passed.

And yet we have conducted class recitation as if knowledge, subject-matter, was the chief aim. Tests in recitation are all directed to ascertain how much the pupil knows of a subject, or perhaps more correctly, to a discovery of how much of the language of the textbook has been memorized, while the more vital process of how he gained his knowledge is ignored.

We believe a little freer and wiser use of individual instruction will afford better opportunities for the much-needed training in the art of study and that such training will lessen the number of failures.

SUMMARY OF INFERENCES AND CONCLUSIONS

1. That the average number of failures in our high school is excessive. Fifteen per cent. is a better standard than that of 22 per cent.

2. That while the number of failures is decreasing slowly the decreasing process should be hastened.

3. That the chief causes of failures are indifference, incapacity, poor preparation, ill-health, and bad habits of study.

4. That one of the causes which contribute to the many failures is a vigorous elimination of the backward pupils for fear their presence will "swamp scholarly standards." There is also manifest a lack of sympathy for the slow pupils and an unfair assumption that these are either indolent or incapable.

PERCENTAGE OF FAILURES MCKINLEY HIGH SCHOOL, ST. LOUIS, BY DEPARTMENTS, AND ENTIRE SCHOOL

	1904	1904–5		1905–6		1906–7		1907–8	
	2nd T.	1st T.	2nd T.	1st T.	2nd T.	1st T.	2nd T.	1st T.	2nd T.
Entire School	16.55	13.97	16.55	11.84	9.90	7.83	8.59	7.50	....
Departments:									
Business	14.2	12.4	7.3	7.79	9.06	3.26	6.39	4.84	....
History	.....	15.9	8.2	14.7	5.45	1.48	4.34	9.09	....
Greek	.....	0.0	11.1	0.0	11.11	0.00	10.00	5.90	....
Latin	24.35	27.39	21.69	16.67	16.31	18.95	18.66	19.09	....
English	16.36	12.25	10.69	7.36	6.13	5.73	7.09	5.16	....
French	14.3	7.0	17.1	14.14	11.88	6.00	15.38	6.42	....
German	14.96	18.79	23.19	20.30	12.06	14.65	14.29	13.58	....
Spanish	0.0	23.4	25.6	15.1	2.92	5.60	8.19	8.02	....
Domestic Science	4.2	0.0	1.72	0.0	0.0	0.00	0.82	2.23	....
Manual Training	6.1	0.84	2.21	3.42	8.24	1.97	2.30	2.09	....
Mechanical Drawing	0.00	2.90	18.50	0.00	0.53	7.27	3.73	0.00	....
Mathematics	29.60	22.40	27.64	23.61	23.04	17.84	17.31	12.20	....
Botany	14.65	11.59	23.62	22.13	14.33	10.69	13.00	10.77	....
Chemistry	.....	.....	9.50	0.00	5.70	2.48	2.47	1.54	....
Physics	7.20	9.90	18.03	15.34	9.70	10.81	14.41	8.76	....
Physiology	14.30	22.75	19.05	10.79	5.17	9.52	3.52	7.39	....
Physiography	.....	.....	.....	.....	0.00	0.00	3.03	4.00	....

5. That individual instruction, as an occasional supplement to class instruction, has no formal recognition in school hours, but that some teachers value it so highly in the rounding-up of slow or belated pupils that they generously devote time and strength to it outside of school hours.

6. That the correction of bad habits of study thru a freer use of individual instruction is a crying need which if properly met will greatly reduce the number of failures.

7. That there is ground for the belief that the method of class recitation, generally in vogue in our high schools, neglects at times the individual needs of our pupils, and that a freer and wiser use of individual instruction just when needed would materially lessen the present large number of failures.

DISCUSSION

W. H. Holmes, Jr., superintendent of schools, Westerly, R. I.—I agree heartily with all that Superintendent Kratz has said. His excellent paper is a protest against machine teaching. It is a plea for intelligent teaching—teaching that recognizes individual differences, and individual needs. It is a protest against education by elimination; it is a plea for education by ministration. Mr. Kratz makes an earnest plea for helping pupils to help themselves. He advocates individual instruction as an aid to class instruction. Now, individual instruction will not accomplish the impossible. It will not make brilliant students out of slow and stupid boys and girls; but it will often do something far better—it will put hope and courage into the hearts of such boys and girls and lead them to realize the power that is within them. Our school work has been too largely based upon the discipline of failure. It should and can be based on the discipline of success. An education that "hits the mark" provides an opportunity for every child to win success up to the full extent of his ability, however meager his ability may be. In order to furnish such an education we must adjust our teaching and our courses to the needs of the individual pupils. We are running wild just now over industrial training, and there is need enough of such training; but after all has been said and done, we must come back to the fundamental principle that training of any kind, industrial or otherwise, must be based largely upon the power to interpret the printed page. We, in the high schools especially, must teach the boys and girls to master the language of books; we must teach them to study; to get the thought out of its verbal husk, and make it their own. This must always be our chief business. Now, the means devised to do this work is class teaching. Class teaching is a very economical device, and it has done fairly well for the majority of school pupils; but it has left a large minority hopelessly stranded. There is sufficient evidence to prove that the greater number of these boys and girls could have been saved by intelligent individual teaching. Superintendent Kratz has told us that the average percentage of failures in all grades of the high school is twenty-two. In the high school of my home town where class-individual teaching has been employed for the past four years, the percentage of failure is 7.3, a difference of 14 per cent. in favor of individual instruction. Superintendent Kratz reports 31.1 per cent. of failures in the first-year class of the high schools. The high school of which I am speaking reports 10.7 per cent. for this year, a difference of 20 per cent. in favor of individual teaching. In the second-, third-, and fourth-year classes, Superintendent Kratz reports the percentages of failures as 21.4, 19.6, and 13.2 respectively, against 5.1, 9.4, and 2.1 for the corresponding years in the high school using individual instruction, a marked difference in each year in favor of individual teaching.

In his conclusions Superintendent Kratz states that 15 per cent. of failures is a better standard than 22 per cent. We have a little over 7 per cent. in our high school. As I have said, individual instruction will not accomplish the impossible. It will not do much for the cigarette fiend. It will not do much for the boy or girl who is socially inclined. It will, however, often accomplish a great deal for the so-called lazy pupil. I have in mind one such pupil in our high school. The teacher said of that boy, "I won't work for him, if he won't work for me." She was led to look at the matter in a little different light. She called the boy to her side day after day and worked with him, not for him, until he began to pick up and work for himself. Now many a lazy pupil can be redeemed in this way. Furthermore, individual teaching will do much for the slow pupil. This type of pupil has always been, and still is, rather a misfit in our schools. He is often slow because he thinks, and real thinking takes time. He finds some point that he cannot understand. This point must be made clear before he can go ahead. The ordinary class recitation makes no provision for such cases, so the slow pupil often gets far behind the class, simply because his individual need is not met. Class instruction magnifies superficial memorizing. It minimizes real thinking.

Again, individual teaching will aid the weak pupil. Some months ago I heard a recitation in first-year algebra in a large city high school. The class, as a whole, was a very good one. One pupil, however, seemed especially weak. This girl had not mastered the rule for expanding $(a+b)7$. For ten minutes of a thirty-five minute period, the teacher kept the pupil at blackboard with absolutely no result. The rest of the class looked idly on for a few minutes, then grew restless, bored, and finally pained, as the pupil at the board showed her discomfiture. How much better it would have been if this teacher, directly upon discovering the pupil's weakness, had excused her from further recitation on the point. Then at some individual period, when the class was profitable employed, aid could have been given in the best possible manner.

Class individual-instruction, as I know it, had its origin at Batavia, N. Y., and Superintendent John Kennedy and his teachers deserve the thanks of the entire country for giving to pedagogy an exemplification of rational teaching. Under this plan the class recitation is a time for the teacher either to teach the *class* or to test the *class*. It is not a time to teach *one* or *two* pupils some point that all the others know. The individual period is a supervised study period for the class. During this time the pupils study on advance work, while the teacher works silently at her desk with individual pupils who need her aid. This supervised study period is one of the most valuable phases of class-individual instruction.

In closing I venture the assertion that we can aid needy pupils effectively, only by a wise and generous use of individual teaching.

THE COSMOPOLITAN HIGH-SCHOOL CURRICULUMS FROM THE STANDPOINT OF COLLEGES OF ENGINEERING

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The American system of public instruction represents the movement toward which the national educational systems of all the great nations of the world are tending. That such a system is desirable in any nation is no longer a subject for debate; and that it is necessary in a republic is beyond question of opposition.

The statement that children of school age should have the opportunity to be educated at the public expense is no longer only an axiom in civics, good government, and good morals. It now has the authority pertaining to legal decisions. The argument for public-school education is based upon the necessity for the proper training of the child for the position which he will be required to fill as a citizen in the community in virtue of his birth in the republic.

Hence the necesssity for the education of the child in self-preservation, self-support, and in his civic duties as a good citizen. If this be true, and logical, it follows that every system of education should include those studies which will tend to make him a good citizen, which will teach him how to weigh evidence, to discuss public questions, and to decide right from wrong, and which will cause him to vote intelligently and with the exercise of both a public and a private conscience. The day is passed when votes can be changed by empty harangues, by oratorical appeals to passion, and by calumny and slander. Today, the voter is educated and demands a good reason for changing his opinion and indicating it on an Australian ballot. The scheme of studies which the pupil pursues should be such as to teach him how to preserve himself in both moral and physical health. The invalid and the dyspeptic are seldom good citizens, no matter how exemplary their conduct as men. The curriculum which he follows should be such as to train him to become self-supporting, so that he will not be a charge upon the community. It cannot be gainsaid that a hungry citizen, or the man or woman whose stomach has been filled with food purchased with ill-gotten income is a poor voter and therefore a menace to society.

What then should be the character of the program of studies to be offered by a cosmopolitan high school, and from which suitable curriculums can be formed?

1. It should be American and national and should not ape European methods or customs. There is no good reason why we should not obtain many excellent suggestions from foreign countries, and especially from Germany, the "land of the schoolmaster," but we should take little or nothing bodily. Each feature suggested should be most carefully considered in the light of our own conditions and be modified and adapted to meet our needs. What may be admirably suited for Germans in Germany, may not be necessarily the best for Americans.

2. It should be democratic and suited to the needs of each and every citizen of the republic. Being free, it should enable even the poorest child to obtain the education which he may desire and which his mental abilities require. Instead of tending to class distinctions based solely upon the service rendered and the ability of some progenitor, it should permit the lowliest to obtain the education which will fit his personality for the life of greatest usefulness and service in the community, while allowing the drone and society butterfly to fall out along the educational wayside.

3. It should be of high-school grade. This means that it should not include studies of grammar-school grade; nor should it essay to do the work of the college and the university. If a change must be made in the length of the high school course, let the division be made at the sixth grade, giving six years to elementary education, six years to secondary, and six years to collegiate and professional training for the well-educated and cultured individual. Then, if more studies or more matter must be included, let the salaries of our teachers

be made larger so as to enable principals and schoolboards to employ teachers more capable of imparting knowledge and of educating the child to think more intensively. To add two years to the present twelve years of primary and secondary education is to duplicate the work of the colleges and to cater to the wishes or whims of the few at the expense of the many. If a municipal high school of collegiate grade is desired, why not call a spade a spade and let the so-called "people's college" be a genuine municipal college and not a half-and-half affair? The term, "people's college," savors of the demagog, infers that it is for the many, while the present collegiate institutions are for the few. As a matter of fact, both colleges and high schools at present offer curriculums suited to and taken by, only the very few of the school population.

4. In each of the curriculums into which the program of studies may be divided, should be included the fundamentals of all high-school education and all those things which are needed for good citizenship. These include (*a*) a working knowledge of the English language, including composition and rhetoric, ability to spell and punctuate, to compose an essay whose meaning shall be clear, and to write a plain business letter in intelligible terms. It may be said that many professors and college graduates cannot meet this requirement; if so, so much the worse for their elementary and secondary school training and for their carelessness in diction and writing. It has been proven conclusively at Northwestern University that everyone can learn to punctuate, and that although large numbers of high-school graduates enter college deficient in spelling, yet less than 1 per cent. are really bad spellers and possibly deserve to belong to the "cannot-learn-to-spell" class. I believe that if those who do not really try to learn were eliminated, even this small percentage would be very much smaller. It is lack of effort to observe and to concentrate the attention which is the cause of many mistakes in the boy's spelling and arithmetic, and later in his daily work.

b) United States history, including the history of the political parties. There is no reason why the history of our nation and government should not be enthusiastically studied by high-school scholars, provided they are skillfully taught. Here is one place where we can quite properly follow German practice and teach the history of our country and our people. But it should be done with intelligence and truthfulness, and a breadth of national character.

c) Civics, or the knowledge which should be required for citizenship and before one was allowed to vote as a citizen. If I am correctly informed, the ignorant and stay-at-home voter is more to be feared in this country than the one who can be voted in blocks-of-five.

d) The elements of commercial customs, banking, and business law for all high-school boys and girls, so that they will be less at the mercy of the unscrupulous sharper when forced to decide for themselves in matters pertaining to everyday business affairs. Why continue our fatalistic practice of making our widows and our orphans pay large tuition fees in the school of experience so that we may be known as the business man of the family?

e) Assuming a working knowledge of arithmetic capable of rapid and accurate use to have been acquired in the elementary school, all high-school curriculums should include a one-year course in both concrete and demonstrative geometry. Few people appreciate the utility of geometry to men and women in business, in housekeeping, dressmaking, upholstering, and gardening, to say nothing of engineering and the sciences. Its most valuable feature is the practice it demands in imaginative thought and in logical demonstration. As such it is an excellent prerequisite for economics. It should always precede algebra by a half-year.

f) In our efforts to be non-sectarian in all matters pertaining to ethics, morals, and religion, we have gone to the other extreme, and omit everything that is positive and dogmatic. We no longer tell a child that "lying is sinful," and stop there. We must use a softer term and say that "lying is wrong" and then must add apologetically that "it does not pay," and that "honesty is the best policy." In many schools, judging by their output, the Bible is unknown even as a sample of English literature, and the ignorance of it among college students as a "mine of English undefiled" is pitiable and sad.

g) As each child has senses to be developed besides those of seeing and hearing, an elementary course in manual training should be required of all boys, and in domestic science of all girls. The course for the boys should include at least carpentry, and joinery, and possibly wood-turning. The course for the girls should include plain household cooking and plain domestic sewing. Both sexes should be taught to draw for both the artistic and practical benefit to be derived therefrom. By drawing, I do not mean the making of pictures. Why continue to train the eyes of our children and possibly their ears, and let their sense of touch and muscular adjustments remain untrained? Every child needs to have his hands trained to do something, and especially at the gawky age of the first year of the high school. From the point of view of national economics, the training of the hand should no longer be so wastefully neglected. We have recently had a meeting at Washington of the governors of the states of the union with the object in view of training our people to preserve and conserve our national resources. Not a word was said about directing and training the latent energies of the millions of hands of the young people of the country so that they would know how to conserve these priceless national inheritances. "Woodman, spare that tree" appeals to our sentiment, but who is there who will teach the woodman how to use the lumber cut from the last tree felled so that he can spare this one, or to cut this one at the right time in its life, and without wasting the best part in stumpage, and without splitting the log?

5. Curriculums in sufficient variety should be provided as will meet the needs of all children who are mentally capable of receiving a high-school education. Until this is done, in no sense is the high school cosmopolitan.

For economic reasons, it can be assumed that, practically speaking, the cosmopolitan high school is metropolitan and is not to be found in agricultural districts, or in villages and small towns or cities; that the cosmopolitan high school is indicative of the tastes, talents, and business of its community; that while it is intensely democratic, it is expressive of the republican form of government in education; that it is American and non-sectional; that it is the department store in education, supplying all needs under one roof and with a comprehensive character of goods suited to the pocket-book of the taxpayer. In the cosmopolitan high school, the courses of study should be so numerous that students having all kinds of minds should be tempted to enter the open door of opportunity, should be guided in the selection each of his own mental nourishment, and should continue for four years to enjoy its invigorating freshness. At least this is what it should be in theory.

The classical high school, the boys' high school, the girls' high school, the Latin school, and the manual training high school are English or European, sectional and class names, and tend to divide the children by sexual or artificial lines whenever they are not housed under one roof. One of the objects of public-school education is the elimination of class feeling in the youth of the nation. Each new evolution from the private schools of the earlier half of the last century has been an effort in this direction. Their titles tell what they stand for. The classical, modern language, English, commercial, manual training, and the various hyphenated science curriculums are all well and good for the few, but it is evident that they do not attract the many. We now hear and conjure with the term cosmopolitan meaning universal and comprehensive. It is a goal toward which we are travelling educationally. What we need in our elementary and secondary schools are additional curriculums which are intended for the masses and not suited solely to the tastes and pleasures of the classes. It is all well enough to try to eliminate any class feeling among those high-school scholars who are sent to the cosmopolitan high school, but what about those boys and girls who see in the present curriculums, with possibly the exceptions of the curriculums in manual training and domestic science, nothing suited to their wishes, tastes, and needs? Verily, we have eliminated class feeling, by eliminating the class of students who might have any feeling in the matter.

Bulletin No. 379, of the Bureau of Education, by Professor Edward L. Thorndike, shows the terrible results of this elimination, and that it is more severe in the East where private schools still flourish, and in towns and cities where there is a live demand for industrial workers. In fifty-three cities, an average of only 38 per cent. of the children who were in the three lowest grades reach the eighth grade, and in forty-four cities, only 8 per cent. reach the senior year of the high school. In other words, if a man had twelve children the probability is that one of them would reach the last year of the high-school curriculum, provided he lived in the average city. If he lived in a college town, two or even three might get through the high school. But if he lived in an industrial center, such as Boston, Baltimore, St. Louis, Philadelphia, Cincinnati, only one child in every twenty to one in one hundred would go through the high school. If, for example, in New York state, only 50 per cent. get beyond the fifth grade, only 30 per cent. get beyond the grammar school and only 8 per cent. get into college and only 2 per cent., or less, get through college, it would seem to indicate that there was something wrong somewhere in our educational system, and that it had gone to seed in academic pods rather than bear fruit of economic, industrial, and social value. We used to divide school and college youths into those who go and those who are sent. This division leaves out the largest class of all, namely, those who are eliminated.

What we therefore need in our cosmopolitan high school in addition to our present curriculums are two groups of curriculums suited to the needs of boys and girls who belong to the majority rather than to the minority. I would therefore advocate most earnestly the addition of industrial, domestic, and commercial courses which should be of *real* value to the child and to the community, which should supplement the elementary courses in manual training and domestic science, and which should make all life richer as well as more effective. I am much in favor of trade schools, as we find them in Germany, Switzerland, and France, for the manufacture of the well-trained and skilled industrialist, and such as are so well trained at the Milwaukee Public Trade Schools. But excellent as the trade school is in all things pertaining to the trade, it tempts the boy to leave the regular school and learn only the trade and allied subjects. Trade education alone is not a preparation for life; it is life itself. Instead of the trade school where only technical information is acquired, and instead of the school having only the old-time classical curriculum, we should compromise the matter and in the cosmopolitan high-school curriculums should combine the fundamental courses given above with education for certain of the trades, for domestic life, for commercial positions, and for clerical work. We have at last learned that we cannot cast all children in the classical mold of a classical education, no matter how good it may be for the few. We should be permitted to cast a large number in an industrial mold and have them educated in English composition and rhetoric, United States history, civics and government, commercial customs and practices, geometry and good morals, in addition to their special training in some branch of industry. By so doing, the colleges will receive a larger number of applicants for admission; the engineering and technical schools will be able to get young men who are already trained in one or more of the engineering trades and know what they want before entering the college; the manufacturers will have a larger supply of skilled and educated workmen; the working classes will be better off in every way, and life for them will be sweeter and less of a daily round of drudgery and toil unmixed with everything which does not pertain to their work, and both the industrial efficiency and the social efficiency of the Nation will be improved.

What I would urge upon all persons interested in secondary and technical education are:

1. That high-school graduates shall have had a sane training, free from all foolishness, frills, fraternities, and frequent frivolities, and yet full of the fresh joyousness of youth, intensive with hard study and harder play, and in which a memory-cram of facts and fancies has not been made to take the place of a mind trained for use and for straight and accurate thinking.

2. That they shall have been recruited from all classes of society and have been given an opportunity for mental development, irrespective of their individual differences due to parentage and early environment, but based on their native capacity, aptitude for study, and prospective occupation.

3. That all "snap" courses and poorly and imperfectly developed courses shall be either eliminated or valued at their true rating, so that four years of secondary training of acceptable quality and amount shall entitle the high-school scholar to his diploma, irrespective of the line or lines in which his work has been done.

4. That the student shall have made an honest effort to discover himself and to learn for what purpose he is in the world. The indefiniteness of the aim of many boys accounts for their inability to do anything and do it well; and

5. That the teachers shall have tried systematically to develop the child's capabilities and interests, intellectual, moral, patriotic, aesthetic, manual, and constructive.

Now that the requirements for admission of our best colleges of engineering and of our technical schools are in most cases the equivalent of the academic or classical department of the same institution, the high-school boy who decides to go to an engineering or technical school cannot be rightfully accused of hunting an easy way into college. When publishers of college textbooks boldly advertise that in a certain cosmopolitan textbook on physics "the more severe course necessary to engineers is printed in smaller type," and when college professors of mathematics openly state that they have a higher standard for passing a man in the college of engineering than in the college of letters, it must be self-evident that the engineering college is calling upon the high-school teachers for their best material and choicest output, and that the college teacher and the high-school teacher are alike responsible for the molding of the character and the mind of those who later will decide momentous problems in the movements of the armies of peace and of war. It is a fearful responsibility to decide the destiny and happiness of the lives of thousands of human beings, but the training in high school and college of the mind of the man who is to be the power for good or for evil in the community is none the less responsible.

THE COSMOPOLITAN HIGH-SCHOOL CURRICULUM

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The educational situation is one of great unrest. Recent utterances of students of social phases of life, the cry for the recognition of vocational subjects in college-entrance requirements, the demand for industrial and technical education, are but different expressions of a cry for the freeing of our youth from the mummy cloths of tradition, that they may breathe the free air of present-day life. England, France, and Germany have heard the cry. What are the conditions?

1. According to the report of the Commissioner of Education for the school year, 1905-6, there were in attendance upon the public secondary schools of the United States 0.88 per cent. of the whole population or 3.118 per cent. of the estimated school population of 23,792,723 between five and eighteen years of age. Of these 11.82 per cent. were graduated and less than 4 per cent. entered the colleges or universities, while 8.6 per cent. claim to be in preparation for college. Should the curriculum of the public high school be constructed for the 4 per cent. who go to the university, or for the 96 per cent. who are dependent on the high school for their life training?

2. In our largest cities there is a large and varying foreign element that must needs be adopted into our life and must be prepared for citizenship. The children of these people are in our high schools in large numbers. In the Wendell Phillips High School in Chicago during the school year of 1905-6 there were children whose fathers were born in over thirty different countries, and this year the school counts about twenty-five. Does not this matter of nationality, with its consequent hereditary traits and tendencies, become an important factor in the development of a cosmopolitan high-school curriculum?

3. The report of the United States Census for 1900 shows that of those ten years of age and over in gainful occupations in the ten largest cities 5.255 per cent. are in professional service (under professional service are included actors, architects, electricians, engineers [civil, etc.], government officials, etc.), while 25.656 per cent. do domestic or personal service, 29.918 per cent. follow in trade or transportation, and 38.412 per cent. are in manufacturing and mechanical pursuits. (1) Does our curriculum fit the 95 per cent. in other than professional service? .or has it in mind the 5 per cent. only?

4. The college and the university control the high school. A cursory study of the index for fifteen and fractional years of the leading secondary educational magazine shows 214 entries under college-entrance requirements or some relation of the college to the secondary or high school. Then follow 173 entries under English—which no one disputes; this is followed by 160 entries under classics, including both Greek and Latin, while science must be satisfied with 98 entries, mathematics 66, modern languages 51, commercial education 21, civics 16, industrial education 3. The topic "Basis

of an Efficient Education—Culture or Vocation" has 3 entries. The relation of the pupil to the school and the community must be satisfied with 16 entries relating largely to discipline and morals, 14 to athletics, 10 each to coeducation, and high school and society, 5 to fraternities. School buildings in this day of the development of school architecture occupy 3 entries.

5. The Commissioner of Education in the report referred to above shows that 50.24 per cent. of the pupils in our public high schools are taking Latin while but 8.85 per cent. take French and 20.96 per cent. take German, with no report for Spanish. Algebra—replete with theory and sterile in concreteness—occupies the attention of 58.05 per cent. of our children and geometry 28.50 per cent., while studying physics we find 15.27 per cent., chemistry 6.52 per cent., physical geography 20.97 per cent., physiology 20.36 per cent. The biological science, so important in life and nature-study, is not honored with mention. History (other than United States)—(*note the parenthesis!*)—is studied by 42.39 per cent., while civics receives the attention of but 17.48 per cent. We find no statistics for the different vocational subjects and must be satisfied with the statement that 95,000 are pursuing commercial subjects in our public high schools, and that 50,595 were in manual and industrial schools, both public and private.

6. That some idea of the trend of secondary education in our cosmopolitan high schools today may be derived, a study has been made of the curricula of the high schools of fifty of the largest cities. No account is taken of commercial, technical and manual-training high schools in this report.

CONSTANTS

We find that the fifty require at least two years of English for graduation, of these 5 require two and one-half years, while 44 require three years and 38 four years of English. In mathematics 47 require algebra, while 41 require geometry and 9 require solid geometry—with 3 registering arithmetic for half of first year as required. In science 9 require physiology, 15 physics, 4 chemistry, 6 physical geography, 8 botany. Eighteen require United States history, 16 ancient history, while 6 name Roman history and 7 English history. Six require civics, 8 elocution one to two periods a week, and 11 require physical training 3 or 4 years twice a week. Nine require music once a week, and 12 free-hand drawing one to two times a week.

While no public high school names Latin as a permanent constant, still as an optional with German or French or some other subject, as a constant in a given course of study, we shall find from two to four years of Latin effectively a constant in many of our schools. This is confirmed by the further fact noted above that 50.24 per cent. of the pupils in the public high school were studying Latin in 1905–1906.

ELECTIVES

Fifty schools offer Latin as an elective, either as an optional with another study, or elective by course or year, or as a general elective. Of these 4 offer but three years of Latin. Greek is offered by forty schools, 4 offer four years, 29 three years and 7 two years, and offered as Latin, either as a general, a course, an optional, or by the year elective. Forty-four schools offer German; 32 for four years, 9 for three years, 3 for two years; while 48 offer French, of which 14 offer two years and 17 each three years and four years. Spanish is offered by 18 schools from two to four years, optional four; 3 offer Spanish in the ninth and tenth grades, while 7 offer it in the eleventh and twelfth grades. Three schools offer algebra as an elective while 10 offer plane geometry in the second to fourth years, and 37 solid geometry in the third and fourth years of which 23 by courses. Trigonometry is offered by 43 schools, physics by 41 schools, chemistry by 48, physiology by 29, botany by 33, zoölogy by 37, physiography by 39.

A closer examination shows that 10 schools offer but half a year in physiology, 7 a half-year in botany, 5 but half a year in physiology, and that with the exception of chemistry and physics which are confined to the third and fourth years, these sciences may be found as electives offered variously in any one of the four years as the schools may elect. Five schools offering two years of physics save the day. Query: Is the value of a science offered in the first year the same as that offered in the fourth year? Is it a wonder that, in transferring, pupils discover differences, oftentimes to their sorrow?

In the historical studies we find the same chaotic condition. American, mediaeval, and English history may be taken in any of the four years and in several schools are offered as half-year subjects. Ancient history stands forth as a full-year subject and offered in the first, second, or third year in 38 schools; economics for a half-year by 30 schools. Psychology—save the day!—is offered in the fourth year only; by 7 schools for the full year and by 2 schools for a half-year.

In the vocational subjects we find the same conditions of chaos and different evaluation. For example, the pupil may choose his school and thereby take his commercial geography in the first, or second, or third, or fourth year; and so with commercial law. Nine schools offer but half a year of commercial geography, and all courses in commercial law occupy half a year. Twenty-nine schools offer two years of bookkeeping and 16 one year, ranging from the first to the fourth year; while 9 offer one year in stenography, 28 two years, 4 three years, and 3 four years. In domestic science we find 7 schools offering four years at one period a week; 2 two years, two periods a week; and 3 one year at three periods a week.

When you consider that any or all of these subjects are either optional or elective by course, by the year, or is a general elective, you can see into what a delightful position one is placed who would attempt to bring into orderly form this chaotic mass. To say that botany or physiology, history, American, mediaeval, or English, or the commercial subjects may occupy a position in any one of the four years and have the same power of mental development or the same quality of product is not only illogical but absolutely absurd. But here is a condition.

7. We are now led to another most vital condition, a condition that has caused much anxiety and has been the source of most violent criticism of the public schools: the elimination of pupils during the several years of our high school, especially in the first year or ninth grade.

Professor Thorndike has just published through the Bureau of Education *The Elimination of Pupils from School*, in which he estimates that 27 per cent. of pupils entering the schools of 23 cities investigated continue to the ninth grade, 17 per cent. to the tenth grade, 12 per cent. to the eleventh grade, and 8 per cent. to the twelfth grade; while 37 per cent. entering high school do not continue to the second year, 29.4 per cent. of second year do not continue to the third year, and 33.3 per cent. of third year do not continue to the fourth year. When we compare with those entering high school we find the final result in the fact that but 13 per cent. enter first year of the high school, 10 per cent. second year, but 5 per cent. enter third year, and but 4 per cent. enter fourth year. From the conclusions reached by Professor Thorndike I make the following quotation:

> The high school, which attracts so many, holds so few. Something in the mental or social and economic status of the pupil who enters the high schools is at fault. The fact that the elimination is so great in the first year of the high school gives evidence that a large share of the fault lies with the kind of education given in the high schools. One can hardly suppose that very many of the parents who send children on to the high school do so with no expectation of keeping them there over a year, or that a large number of pupils who complete the elementary-school course and make a trial of the high school are so stupid or uninterested in being educated that they had better be got rid of in the first year.

A study has been made within two years of the causes of such elimination in the Chicago high schools. It was the purpose of the writer to make a personal examination of the data secured by the committee appointed by the Board of Education, but before he was able to take time for such study, Mr. Ralph Blount of the Robert A. Waller High School, a member of the committee, published some findings from the data received. This paper shows that 34 per cent. of the ninth-grade pupils either had dropped out or did not intend to return the following September. Mr. Blount's study leads him to believe "that failure in study is the major cause of leaving"—covered in many cases by "leaving ostensibly to go to work." With Mr. Blount's permission I am submitting a table (appearing on the following page) made by him, such table being "corrected by the aid of impressions not subject to tabulation, derived from the report made by the teachers."

This is very interesting and gives much food for reflection and speculation. Of course the 9 per cent. that move from the city, the 2 per cent. that are transferred are not necessarily of "the lost." The 3 per cent. that go to private schools are still in pursuit of training and about them we need not worry. Of those that fall by the wayside because of sickness, we have cause

REASONS FOR LEAVING SCHOOL IN NINTH GRADE—CHICAGO HIGH SCHOOLS

	Per cent.		Loss
Removal from city	.09	Exclusive of number leaving because obliged to work, 28 per cent.	Practically not preventable
Transfer to other schools	.02		
Sickness	.15	Inclusive of number leaving because obliged to work, 44 per cent.	
Miscellaneous causes	.04		
Business colleges	.03	Inclusive of number leaving because obliged to work, 72 per cent.	Preventable
Other private schools	.03		
To work:			
Necessary	.16	Exclusive of number leaving because obliged to work, 56 per cent.	
Pupil's taste	.08		
Failure	.40		

to think. Are we, through lack of study of ventilation and sanitation in the school and home, through ill-taught physiology and hygiene, through inattention to the enforcement of the laws of health as we come into contact with these young people, through inattention to the physical condition of the child in his relation to his studies, in the smallest possible way responsible for this condition? Can we assist the parents? Or is this condition caused at times by the change of environment, too heavy, ill-timed, and ill-adapted studies causing nervous strain? Time will not allow discussion of the relation of the elementary to the high school in preparation of the young pupil for the great change to take place, nor of the facts underlying the passing into manhood and womanhood, which if properly understood by the teacher would stop many harsh words, heartache, and consequent breakdown.

The business college is credited with but 3 per cent., but account is not taken, of course, of those who step into business colleges directly from the elementary school. Those who would go to business college can be assisted and saved to the public high schools by more practical development of the commercial courses, by more wide-awake, concrete instruction, and by an attempt to acquire positions for those young people, who ought to be far better equipped than those who come from the hothouses. Why should not every city high school organize a bureau of employment, not only for those who may be graduated from its vocational courses, but for such as are unable to remain in school unless they are able to secure employment? Why may it not be possible to secure positions for worthy young men for part time in our leading business houses, in minor positions as newspaper carriers, as messengers, etc? May we not save a large number of this 24 per cent.?

The 40 per cent. that go down in the table as failures, what of them? What of the whole 34 per cent. of which this 40 per cent. is a part? What of the 25,000 children between 14 and 16 in Massachusetts alone, who are either at work or are idle? And Principal Bogan of the Lane Technical High School of Chicago tells us that the last school census of Chicago revealed 8,000 boys and girls between 14 and 16, not in school and not at work. While here there may be one seeming incompetent, and there one so lazy that nothing can seemingly develop interest, try him—give him something to do; create a deeper interest; develop greater enthusiasm; form for him a more definite purpose in life. If we would learn "to put the whole boy in school," "arouse all his native energy by offering a complete and blended expression of all his active intellectual and motive powers through a long series of occupations—healthy and vigorous in body, clear in thought, and ready in execution."

THE REMEDY

"School is life," says Professor Dewey. The curriculum of the city high school should be typical of the city in all its interests and activities. With Dr. Dewey I believe that there should be no segregation but that we should have the wider high school because, as he says,

> The wider high school relieves many of the difficulties in the adequate treatment of the individual as an individual. It brings the individual into a wider sphere of contacts and thus makes it possible to test him and his capacities more thoroughly. The need is . . . . for a region of opportunities large enough and balanced enough to meet the individual on his every side and provide for him that which is necessary to arouse and direct. . . . . Our task is on the one hand to select and adjust the studies with reference to the nature of the individual thus discovered and on the other hand to order and group them so that they shall most definitely and systematically represent the chief lines of social endeavor and social achievement.

So every city high school should first of all give that which the 96 per cent. of the earning population demand and then should offer the 4 per cent. its demand for college preparation.

It is not necessary, here, to declaim the merits of the industrial training. Massachusetts and Wisconsin have taken steps in the inauguration of a movement that promises to be most effective. The National Society for the Promotion of Industrial Education, too, in its two great meetings and in its literature has developed a deep interest and has sought not only the sympathy but the active participation in its discussion and the organization of its plan, of the representatives of labor and of capital and of those interested in social work and in the training of our boys and girls. However, while it, as a rule, desires to organize these schools as a part of the public-school system, it does not wish them to be an inseparable part of the public school as now organized but rather a new organization, within the old. In speaking of the movement to organize separate agricultural high schools, Professor Davenport, Dean of the College of Agriculture, University of Illinois, says, "We cannot segregate and make an educational cleavage at the line of occupations except to the common peril."

And Professor Frederick Bolton, well known for his work on the schools of Germany, sounds the alarm:

> A separate class of high schools must not be allowed to spring up. Just as sure as they do, they will breed social distinctions and cause stratifications in society. It has been our boast that children of all nationalities, occupations, and creeds enter our schoolroom doors and emerge together—American citizens. . . . . If we wish to promote true democracy and avoid artificial distinctions we must see to it that we have only one class of public schools and that including every subject worthy of consideration and open on equal terms

to every boy and girl in the community. . . . . The one who argues for the establishment of a separate system of agricultural high schools, or separate industrial high schools is wittingly or unwittingly an enemy to our present high schools and to true democracy.

Every city high school, then, should offer not only such studies as are needed as a preparation to professional life in its various phases but *all* such vocational subjects—either commercial or industrial—as may be needed by the youth of the given city. This does not mean wide-open election but rather the development of a series of suggestive parallel courses of study similar to the St. Louis system but even broader in its scope so that it may meet the demands of the individual pupil in his particular environment.

Superintendent Chancellor in his last book, *Motives, Ideas and Values in Education*, has struck the keynote, it seems to me, when he demands, as constants, play, nature-study, and the vernacular, with music and drawing as minor constants.

In this connection I desire to emphasize the necessity of physical culture for our city-bred, yes, flat-bred boys and girls. No one should be excused therefrom unless physically disabled and each one should be obliged to take not less than two periods in the gymnasium a week; daily would be far better than the two periods. Physiology should be a constant in this day of hygienic carelessness if not of ignorance. The Commissioner of Education reports 20.36 per cent. as taking physiology while 50.24 per cent. take Latin. Verily the physical "know thyself" needs promulgation as well as the "know thyself" of Socrates.

To this I would add American history and civics. You will note that American history is omitted entirely from the report of the Commissioner of Education and that but eighteen of the fifty schools report courses in American history as constants and as an elective it is offered in connection with civics and in some cases is but a half-year subject, while civics in the Commissioner of Education report is interesting but 17.48 per cent.

A short time ago I strolled over to the small park in which was situated the Douglas monument. Curiosity took me to the grated iron door in the base of the monument. I looked in upon the sarcophagus to read at its base:

> "*Tell my children to obey the laws and uphold the constitution.*"

With the above facts before us, the irony of the situation is apparent.

Further, bear in mind that methods of presentation should be more adapted to the present-day mode of life. The spirit of the modern should enliven the teacher of the text. Mr. Partridge of the New York Board of Education has righteously inveighed against the course in English masterpieces based on the college-entrance requirements. The Brooklyn *Daily Eagle* quotes him as saying:

> College professors select the literature to be read and studied. Burke and DeQuincy and Addison are not nourishing food for us. There is no natural selection of reading. It is absurd for a college board to select the reading for all the schools of the country. The

effect of it is the absurdity of reducing the reading of literature to its lowest term. Instead of promoting a love for literature, our high-school experts have fallen into the ridiculous position of promoting a distaste for it. Why cannot our experts devise English studies that will cultivate literary appreciation? Why need we be so afraid of finding out what a boy likes? Our high schools fail of developing literary appreciation, and they fail because they have bound literature with a syllabus that insists upon an over-minute consideration of detail.

The author of the pages given to the English course in the curriculum of Horace Mann School, part 1, page 8, says:

> The English work of the upper two years is restricted both in subject-matter and in method of treatment by the College Entrance Board. The English Department of the school feels that to this extent its course in English is inferior to a course more liberal in subject-matter and less technical in methods.

"The trail of the serpent is over them all"—and the spirit of traditionalism prevails. Even in the mathematics of the high school—algebra and geometry—it is only recently that a tendency to concrete teaching has been shown. What boy has not balked at the "fool's bridge," or at some algebraic theory? Why can we not have more applied mathematics and not relegate "doing things" mathematically to the shop and to the technical school? Much of our high-school mathematics is like the whitened meat the fond mother offers her boy after she has sucked all the juice therefrom. Blessed be drudgery! Yes, when you can see why.

It must not be that certain lines of study whether humanistic or scientific are alone sufficient for the development of the varying powers, but whether it is the aim to make our young men and young women so efficient that they will be able to take their places in a world that makes each pull not only his own weight but be a true helper in the crew to which he belongs, able to pull with the others.

Time is not sufficient to develop the curriculum of a cosmopolitan high school. One person cannot do it. The report of the Committee of Ten marked a step in the evolution of the high-school course of study. Fifteen years have passed. The elective scheme has been tried. A new cry is heard. All honor is due this famous report and its makers; an enormous good has been the result. We are moving. Conditions are changing. Is not the time ripe for another commission, a commission of those immediately interested in public high schools, to collect data along the lines already suggested, and with this data in hand to develop a curriculum that shall meet the demands of the youth of today and thereby save to himself and to his generation many a boy who is relegated to the most menial task, when he might be fitted for the higher spheres of labor? Then let us make our boast of universal education true by upbuilding every boy and girl. Let us make thoroly honorable in the sight of all every position in life, because there is a light seen by all, a culture born not of mediaevalism but out of the present with its magnificent possibilities, a culture that recognizes that to carve a mantel or a chest, to construct a telephone system, to design a pattern for wall decoration, to weave from raw material a copy of an Indian blanket in all its rich colorings, is as great as the skill needed to solve an intricate problem in algebra or to read the story of Odysseus from the original Greek. Not only is the skill equal, the amount of brain-force equal, but what is even more, an interest is often present that is in itself educative in value.

This can be but a preliminary study. The problem is before us. Is not the day here—prophesied by Dr. Oscar Riddle of the University of Chicago:

> One day . . . . our educators will awaken to the fact that education bears some relation to the creative labor of man and further that the productive citizen is demanding a school that is for him and for us, not for the progressive reincubation of mediaeval linguistic nest eggs which are so commonly the pride of the pedagogue.

DISCUSSION

Wells L. Griswold, principal of Rayen School, Youngstown, Ohio.—The question of educational policy which this country has up for discussion and if possible for solution today is that of education for efficiency. There is no pointed argument concerning the traditional high school. It is established and is here to stay. The shop practice which has limited the number of apprentices, the trouble which manufacturers have had in finding competent mechanics and foremen, combined with the difficulties which the schools have experienced in the attempt which this country has made to crowd upon all classes a liberal education, has resulted in a well-defined and justified public sentiment for educational opportunities of an industrial character. The question, so far as it affects secondary education, is, shall we have trade schools, industrial or technical schools, or shall we develop cosmopolitan high schools?

Undoubtedly the cosmopolitan high school should be encouraged. All high schools should be cosmopolitan, or as nearly so as the size of the community in which they are located will permit. That is, they should include in their program of studies all the subjects of the traditional school and in addition they should make ample provision for business courses, for manual training, shop work, domestic science, and for the elements of those trades which are characteristic of the local communities. The ideal must be to meet all the demands of their constituencies for secondary school training. In very large cities there may be room for trade or technical schools, or for Latin schools, but even then the best interests will be conserved if the cosmopolitan high schools predominate. In these general schools all classes meet on a common level. It is of great advantage to the children of the rich and ruling classes to mingle with those who come from the homes of poorer parents and it is of inestimable value to the children of the poor and uncultured to meet and mingle with those from homes of culture and means. If separate schools are provided for those who seek a general and liberal education and for those who wish to become industrial workers, the choice of occupation must be made at an early age, and often long before the pupil has had the experience to choose wisely. Many of those who come to profit most by education for culture and general power would have chosen an exclusively industrial training had they made the final choice at entering high school. In the cosmopolitan high school, courses can be selected in such a way that the boy or girl will ultimately find his place, and this can be done without limiting his opportunity of choice. This equal chance to choose the education which leads to greatest opportunity which is the heritage of the laborer's son, as well as of the child of fortune, must not be impaired.

Industrial education and all education for efficiency must be provided for in this democratic country. The problem of harmonizing education for culture and power with education for industrial efficiency and of giving an equal opportunity to all without ultimately impairing the power of the poorer classes to choose the best will be most wisely determined outside of very large cities by adding industrial and business courses to the high-school program rather than by establishing trade schools.

Louis C. Monin, dean of Armour Institute of Technology, Chicago, Ill.—Colleges must necessarily look to secondary schools for their students; where else could they obtain them? But they should not dictate to them in the matter of preparation. The trouble with pupils entering the Armour Institute of Technology is not a lack of knowledge but the lack of ability to apply what they know. They have not learned to think properly.

Preparation is not so much in what has been studied as in how it has been studied. There should be greater uniformity in the subject-matter. At the Los Angeles meeting last year a commission of seven was appointed from the technical department with the hope that a similar committee should be appointed from your department to co-operate in formulating more uniform entrance requirements to technical colleges. We should get together on essential things. Let us have the broadest kind of high school. Call it what you may, only let it do well what it undertakes to do.

E. W. Lyttle, inspector, New York State Department of Education.—The high school has before it a difficult problem. It is required to do two things—to have two ends in view: the preparation for college and the preparation for life. Doubtless numbers will be increased and boys will be kept in the high school longer by introducing industrial courses. Many leave school, strangely enough, because they cannot afford the expense. In some schools it costs $50 or more for each graduate at commencement. Is not that a shame?

We need constants in our course of study. We should find out what these constants should be and then notify the colleges that they must be satisfied with tests in these subjects. Colleges, in a large degree, are responsible for overloading our courses of study.

Paul Kreuzpointner, chairman of the Committee on Industrial Education, American Foundry-Men's Association, Altoona, Pa.—I speak as an industrial man rather than as a professional teacher. And yet I speak as a teacher—a teacher of apprentices, journeymen, and messenger boys whom I have taught for a generation for the pleasure it affords me. A farmer cannot sow wheat, cotton, and sugar in the same soil by the same methods of planting and cultivation and expect uniformly successful results. This is what it seems to me your cosmopolitan high schools are undertaking to do. You stand in your own light, if you advocate the cosmopolitan high schools and expect through such schools to meet the demands of the times. Separate this work, classify the schools into classical and technical, with separate sets of teachers, take out manual-training schools, technical schools, and schools of commerce. They may be under the same roof but should be independent of each other.

David S. Snedden, Teachers College, New York.—I want to go a step farther. The traditional system is eight years elementary and four years high school, making the pupil about eighteen years old when he graduates from the secondary school. A large part of the high-school boys come from the wage-earning classes. These cannot afford to keep their sons in school until they are eighteen years old. The course of work for such should be planned to enable them to complete it in two years of high-school study. A four-year course should be maintained for such as can afford to remain in school and for such as are going to higher institutions of learning. Sixteen years is about the age when banks and stores and industries wish to take boys and they would then find ready employment and would easily adapt themselves to the duties required of them.

The question remains, What shall we give such boys for the two years they are to spend in the high school? The first year's work ought not to be the same as for those who take a full four-years' course in preparation for college. And yet these two years need not necessarily be industrial; they might be made largely cultural.

Gilbert B. Morrison, principal of McKinley High School, St. Louis, Mo.—I am very anxious to speak a few words in an effort to clear up some false impressions which seem to have been made with reference to the cosmopolitan high school. A little review of the history of the high school in this country will tend to show how the present stage of secondary education, particularly that form which we call "cosmopolitan" such as the William McKinley High School of St. Louis, has come to pass. For a long time science had no place in the Boston High School, and when it was introduced, its pupils were not allowed to mingle with the aristocratic classes of the old school, and two auditoriums were built so that these two classes of students need not meet on socially equal terms. Progress was slow because of the prejudice of the old school against this modern innovation, but gradually the new idea gained in favor. The same opposition, however, against the manual training and industrial education in all forms was encountered. At first separate buildings seemed to be necessary in order to have a free hand and to place the new experiment entirely in the hands of its friends in order to insure its success. But we are passing tha stage now and are entering upon a saner plan. Prejudice is removed and all interests are working in harmony. It is no violation of courtesy to make personal mention of the St. Louis School.

Superintendent Soldan was a conservative man, guarding the school carefully against fads and fancies, and for a long time he opposed the introduction of industrial education, but on the Board of Education was C. M. Woodward, the "father of industrial education," and an earnest contender for the introduction of technical work in the schools. The results of these two contending interests, so ably championed on both sides, was the St. Louis idea of the cosmopolitan high school where all phases of industrial education and cultural studies are found under the same roof and the same management. We find by this method that we can more nearly meet the need of the individual pupil and can shift him from one course to another if he finds out, and we find out, that he has made a mistake in his choice. This shifting can be done without shock or loss of time in most instances, permitting him to remain in the same school and to retain his friends and associates, thus preserving the social unity, to my mind very much to be desired. I have been in St. Louis long enough to learn the merits of the school and to appreciate its advantages.

The Board of Education is so thoroughly satisfied with the McKinley High School idea that the new high school, the "Louis Soldan School," which is to cost $800,000 is to be like it in scope and requirement. We can change courses of study, but buildings stand for all times. It is highly important then that when these great and expensive high schools are constructed, they should be properly equipped for carrying forward the work along lines that are likely to be permanent. I feel strongly on this question and express myself in strong terms because my convictions are strong. The principal of such a school need not be an expert in all things. Such a man is an impossibility. But he should be a man of good judgment who will select experts for heads of departments and exercise a wise guidance and supervision of all departments.

This plan of differentiating between departments in the same school instead of differentiating between schools themselves will in its own time take care of the question of the establishment of industrial education, a demand for which seems now to be engaging universal attention. The addition of more shops, more processes, and a greater flexibility in pupils' courses enabling them to take more manual training and less academic work should solve the new problem of industrial education; while at the same time all the academic excellence of the present courses will be retained for those who wish to keep the highway to a general education.

SCHOOL ATHLETICS: WHAT THEY ARE; WHAT THEY SHOULD BE

MALCOLM KENNETH GORDON, ST. PAUL'S SCHOOL, CONCORD, N. H.

Educators throughout the land are at last beginning to consider the athletic question in its true light, namely, as a great factor in education. We have been brought face to face with conditions which, if allowed to run their course much longer, will of necessity produce positive harm to the youth of the country, to the college man, and, finally, to the social and moral standards of the nation.

By an abnormal development of athletics in precisely the wrong channels, by placing them in a commercial position, and by sadly neglecting the great mass of boys for the benefit of a few, we, the schools in general and the colleges in particular, have now begun to reap as we have sown. It is an educational question, for whether we view it from the side of the child, the youth, or the man, we see in every phase of life the elements of early training, and if play is the inalienable right of the child, he should be given the chance to play, and he must be taught to play in such a way as to develop in him the qualities of leadership and manliness, otherwise it is not too much to say that our national integrity in moral, social, and financial ways is in danger of being lowered.

Sport and athletics in America, I am sorry to say, are vastly different terms. Sport is play, not work. Athletics as practiced in general are too strenuous, too spectacular, and too exclusive. We are not an athletic nation—far from it. We talk athletics but there is too much "grand stand" and too little actual participation in games. Athletics should be a means to a higher end; we have reduced them to a commercial and advertising basis. The plan of using them as an invigorating influence on mind and body has not been worked out. Speaking generally, the harmonious development of all parts of the body alike has been neglected by the school; and the college has no power to correct the evil. Commercialism, vast expenses of teams, multitudes of rules governing play and eligibility of players have well-nigh ruined some of our best games, so that the masses cannot play them. The individual prizes and the false adulation—often of unworthy students—the developing of star athletics, the striving for records, and lastly the most serious abuse, the strenuous rivalry with other schools, have eliminated play from the life of most schools and have reduced athletics to a cut-and-dried work for the few who are expected to pose as champions for their school and to work as though eternity depended upon their winning. As a nation we strive for records, and only the few who approach perfection are athletic, and we do not, as a rule, play for the love of playing.

We may be wildly excited over a great inter-collegiate contest where twenty-two men are struggling before the eyes of thousands of spectators, or we may be one of thousands to view a professional base ball game, but these spectacular performances with their enormous gate receipts do not make our people athletic, but on the contrary they debase athletics. We are not an athletic nation as compared with Germany, where, for instance, the annual Turn festivals at Frankfort produce 20,000 active athletes in the field and there is no grandstand. These men love the sport and they exercise for that reason. England is an athletic nation where the masses play cricket or football the year round and the women walk miles for the love of it. Every park and common is crowded, during the late afternoon and during the long twilights, with the happiest peasantry in the world; they have learned the value of athletics which we have yet to master. We may produce a star who can throw the hammer a few inches farther than their best man, but they can produce one hundred athletes to our one, when it comes to a count. They learn it young, and never having gone to excess they keep to it late in life.

That inter-scholastic contests produce stars I admit, but when it is done at the expense of the great mass of boys, is it beneficial? Ninety per cent. of the boys are expected to sit around and cheer in order to support their team. They march and sing at command, and their exercise is to cheer and yell for Alma Mater! These 90 per cent. also have to pay the enormous bills for coaching, training, and traveling, etc. This is their contribution to athletics. Sport is thus lost sight of: the winning of the game is the only end in view. The team must win. And the few poor fellows that compose the team are told that the honor of their school is at stake. They are coached to the limit of the rules and too often beyond the spirit of the rules, they are trained to the minute, bandaged, and rubbed. Is this play? Is this sport? Then add to all this nonsense the unwholesome notoriety in the papers, the coming in contact with the low sporting element, the temptation to unfairness in the excitement of fierce contests, and of commercialism in various ways, to say nothing of the physical harm caused by the strain of these contests between young boys, and especially between teams from day schools where the proper preparation is necessarily lacking, and we have a fair sample of our American school athletics. The foremost professional trainer of athletes of our generation—Mike Murphy—said a few years ago that "more fine athletics had been spoiled than developed, between the ages of fifteen and eighteen, by fierce school competition carried to excess."

But if the nation as a whole is not athletic, a school which has the club system in good working order is athletic, because all the boys are competing naturally, not by compulsion, for if the facilities are adequate the multitude plays, and what is more pays only for what it gets; there are no idlers, no enforced marching or cheering, no notoriety, and no commercialism.

In order to insure general exercise for all boys ample play grounds, skating rinks, and an adequate gymnasium have to be provided and facilities for rowing, all on a large scale; and a diversified system of games the year round must be presented so as to attract all boys naturally.

The boy thus gets his exercise, but coupled with the development of his body are other requirements which must be supplied, such as sportsmanship, healthy rivalry, unselfishness, and the training of character in general. These are developed in the multitude by local club competition, where every boy from oldest to youngest plays with his equals. Each boy should consider it his right to demand of a school the chance to play any and all games in proportion to his strength, and a school which does not give him this chance is not only falling short in mere physical training, but is neglecting to grasp one of the most obvious and most important elements of character building.

The game is a means of bringing out the best features of athletics. All will admit that its functions are lost when it is made a mere spectacular performance. Rules upon rules are evolved to prop it up, so that the game is no fun, but becomes a formality and hard work. The blame for this may be justly placed on the colleges, whose graduate bodies have made the game a piece of business, but where schools have to win inter-scholastic contests, they too must bear part of the blame. Indeed, I firmly believe that if fifty of the larger schools of the country should now adopt the club system in its entirety, the game would, to a great extent, assume its former and natural functions, for club contests improve the game because boys will play it for the love of the sport, and the series of contests lessens the importance of the winning and thereby develops sportsmanship.

If the high schools of the country could acquire grounds sufficient for such a system then we should see at once the greatest athletic revolution, hundreds of thousands would soon be playing games and our country would not only become athletic, but by the broader development of the boys' characters we should see a moral and social improvement in the nation at large.

The boy at play is in his natural element—so to speak. To deprive him of developing this side of his nature is to do him a great injustice. A boy is by nature cruel; by environment he is what the school makes him. While we consider health as the main end of athletics, we must not lose sight of the fact that in acquiring this health the boy must be taught to play for a higher motive than the winning of a prize. If we neglect the masses for the chosen few we fall short of our duty. We must give each and every boy the same advantages to play. This is not done where inter-scholastic contests are highly developed.

A school should encourage team games such as football, baseball, rowing, etc., rather than allow the more individual games to have first place, for in team games a boy's character shows up in a truer way than in any other phase of school life. A boy of low moral character will not ring true in a team game and a selfish one seldom helps team work, which teaches a boy to work with his fellows and to forget himself. Profanity and unfairness crop out in games quicker than elsewhere. All these advantages and disadvantages must be followed up or checked. Teachers, not professional coaches, must be in the games with the boys. In playing with boys as an equal a man has open before him a field for influencing the boy of which one who has not tried it has no conception.

The club system, where many teachers mingle with many teams, is here at its best, for not twenty or thirty boys but practically a whole school is taught the true value of the game and is developed in all other wholesome ways, and by the intimate relations between teachers and boys, the game, boys and teachers are helped and the school is doing its duty by its boys.

Specializing in athletics, as in any other field, tends to narrowness. A boy is taught and coached along one line. His muscles are not developed equally.

If he be a good jumper he is made to jump until he breaks the record and his sport is turned into work. Individual prizes are also a menace. The club system in a school takes care of both these dangers. A boy is interested in several branches of sport and is not likely to carry any one to excess, for the tendency is to develop an all-round athlete since one's fellows demand his service in many fields. At St. Paul's School individual prizes are few and little thought of in team games. Over one hundred boys row hard from January to June, and the only outward reward is to have the names of the winning crews carved upon tablets which are placed in the gymnasium. The same is the case in football and hockey. Athletics if taught in the right way have a far higher end than a cup or medal.

The boy's character is bound to be influenced by athletics. Our national tendency to get the better of our fellows is a worthy one so long as we all give the square deal, but when a boy is taught that a material prize is always before him and that the goal may be attained by fair means or foul, is it not natural for him to pursue the same tactics when, as a man, he enters the game of life, be it financial or social? During the formative years from ten to eighteen a boy is molded by his environment. Thus the school has this responsibility, not the college.

Lastly, the fierce rivalry engendered by inter-scholastic contests is a distinct evil to which we can no longer be blinded. Leaving out its pernicious influence on the mass of boys who have to follow the team, such as idle associates, betting, rowdyism in various forms, and financial extravagance, this rivalry is harmful to the schools. Of course it produces elements of courage and if held within bounds it may do as much positive good, but boys are not men, they cannot be expected to withstand the temptations to which they are exposed. Where one team is coached to acquit themselves as gentlemen, win or lose, ten are allowed to go into a contest with little of this preparation and in the heat of conflict the desire to win is too much for them. The wild applause of their followers and the notoriety gained in the sporting columns of the press drive the contestants to extremes which kill sport, lower morals, and often permanently injure a good athlete physically.

If this is not considered an important educational question, then we are blind to the development of the moral and physical side of our boys. The school is the only place to meet and correct the evil. The college cannot do it.

Having been asked to outline the athletic system at St. Paul's School, I may be pardoned if I conclude this paper with a short description of the working out of the club system, by taking our plan at St. Paul's. I do so because, nowhere in the country, I believe, is there a system so complete and far-reaching, with traditions and associations which make it unique.

To begin with, there are two boat clubs, the Halcyon and the Shattuck boat clubs, founded in 1871, each having separate boat houses at Lake Penacook, a lake three miles long, situated a mile and a half from the school. It is an ideal place for rowing and very beautiful. Each club has five eights on the water and the ninety-odd boys go to the "Pond" as we say, in four-horse barges. Every boy in the school belongs to one club or the other, brothers and sons of alumni of course going into the club of the family, while the other new boys are chosen in order of size. From the hour a boy enters a club his loyalty is never shaken.

During the long winter about one hundred and fifty boys are rowing in the gymnasium and going through the various exercises, but after the ice leaves Lake Penacook the crews are sifted down to ten eights and substitutes. Besides these larger crews there are six fours of the Lower School training too, and these small boys row three series of short races on the school pond back of the gymnasium, so that we may say there are one hundred and twenty boys rowing from January to June.

For all sports except rowing, the school is divided into three parts, and every boy belongs to one of the three athletic clubs. The Isthmian and Old Hundred clubs were founded in 1859 and the Delphian in 1888. Like the boat clubs the membership in these clubs is numerically equal, and sons of alumni go into their father's club. In football, hockey, and track games these clubs compete, and until recently in cricket.

Each club has six regularly organized football teams in training all the fall. The entire coaching is done by masters who work strenuously for the clubs. No matches with schools could possibly produce more healthy rivalry and intense interest than the contests between the first elevens of the clubs. Each team plays a series of three games with its respective rivals, thus we have eighteen elevens playing in all nearly forty matches, and this does not include the various scrub games between houses, etc. This means practice every day for teams not in matches, and nowhere in the country will one see a more animated sight than that at the Lower Grounds when early in the season before the various squads are thinned out, over two hundred boys are working hard, to say nothing of many others who are kicking balls about, or playing tennis, or practicing on the track. I may say there are no idlers or spectators; all are doing something. If any one would see the club system at its best let him visit the Lower Grounds during October, and I think he will be convinced that for a large school, at least, the club system solves the athletic question.

There is no material reward for all this work either. Only the first elevens of each club have their names carved in their club room in the Athletic House—an honor which the small boys look forward to, and the old boys look back with pride. Club spirit is so strong that every boy feels it his duty to play for his club, no matter what team he makes. Often sixth form boys are playing on third elevens shoulder to shoulder with third formers.

The same general play exists in hockey. This, the grandest of all winter sports, is at its best in our climate. With over one hundred days of skating, with our eight or ten rinks swept or planed every day, is it not natural for our boys to be enthusiastic hockey players, when they have but to step out of the gymnasium, or rather skate house, onto the ice? The club system here furnishes twenty-one or more regularly organized teams with their series of three games each; in addition to these games there are numerous matches between houses, dormitories, etc.

In track games the clubs enter large teams for the Anniversary sports in June. The training for these games is done chiefly by the various captains and by several masters who devote much time to the clubs. The fall handicap games this year had 296 entries. These are valuable in bringing out material for the regular games in the spring.

One may wonder how there is any play time left for other sports, but with the exception of the crews most of the boys are at the Lower Grounds and the eighteen or twenty tennis courts are crowded to excess while other boys play golf, canoe—there are sixty canoes at present—race hare and hounds in the fall, snowshoe and coast in winter, work in the gymnasium or play racquets and squash. Except for the first team contests in football and hockey and for the annual boat races there are no spectacular attractions. The boys prefer to play than to look at others play.

All this goes to prove that the club system is a success at St. Paul's and our health record bears out this theory, for it is said that during the past thirty years St. Paul's has had a better health record than West Point or the Naval Academy where each student is supposed to be physically perfect.

If it is admitted that the system produces in its results the greatest physical benefit to the greatest number, it is also true that it develops a high degree of sportsmanship and creates ties, among boys, that last for life. Often captains of opposing teams or crews are roommates. This makes no difference in the athletic struggle, but it tends to create that unique quality of generosity and good feeling that prevails when the contest is over.

The system also develops that valuable characteristic—leadership, for the captains of every team are responsible for the success of their fellows, and when I say that there are all told seventy-three captaincies under our system, you may be sure that leadership and responsibility are widely developed as factors of a boy's education. An interesting fact is that a vast number of our alumni keep their athletics during after years. Their love of true sport imbibed while at St. Paul's stands by them, and St. Paul's is represented widely all over the country in the sports of those who have left college, and this is attributed to the school's policy of encouraging in the multitude a love of sport for sport's sake.

DISCUSSION

C. E. Emmerich, Indianapolis, Ind., read the report to the Board of School Commissioners of Indianapolis of a committee of which he was chairman, as follows:

> Your committee to whom was referred the question of athletics between the two high schools and also between our high schools and those outside the city, respectfully begs to present the following report:
>
> It seems to us that no one would question the value of well-regulated physical training, and also it seems that no thoughtful person would fail to see the evils inherent in the prevailing type of school athletics.

The defects of the present system may be roughly classified under three heads: (*a*) from the pedagogical point of view; (*b*) from the physical side; (*c*) from the ethical standpoint.

Under (*a*) may be presented:

1. The value of athletics as at present in vogue is disproportionate to the cost in time of players and of teachers who supervise them.
2. The burden of managing the finances of the game is too great.
3. There is too much tension developed among the pupils in general before a decisive game, which results in inefficiency in studies.

Under (*b*), the physical side, may be included:

1. Too few of the boys are actively engaged in athletics. General interest is centered in developing a team which will win.
2. Those boys who do take an active part in athletics are the ones who least need physical culture.
3. At present there is danger of serious injury to players, particularly in football, through the efforts of a rival team to cripple a good player in order to weaken his team that they may win.
4. High-school boys will not train properly and are frequently injured permanently by overstrain.
5. When trained at his best the boy of high-school age is too immature physically for some of the games as played at present.

Under (*c*)—the ethical standpoint:

1. Athletics should develop games, not contests.
2. At present, teams compete with other teams over whose physical and ethical status we have no control.
3. Games as now played tend to create bad feeling between schools. Sport for sport's sake is replaced by the spirit of contest, and where large numbers are concerned the mob spirit may arise.
4. There is at present a tendency to estimate the quality of a school by athletic contests won.
5. The character of a portion of the following of athletic contests is of so low a type that it tends to demoralize the game. While this sort of following is small in numbers its influence is unduly great and is practically outside the control of school authorities.
6. The public generally looks upon a winning team as a successful team; hence, the coach is tempted to introduce questionable practices to develop a team which will win at any cost.
7. The hero worship accorded the prominent athlete by pupils, press, and public tends to give him an altogether false notion of his own real importance.
8. The earnings of the games constitute a temptation toward commercialism in sport.

In view of these facts, your committee therefore recommends that after December 1 of the present year no more competitive games be played under the auspices of the school between pupils of the two high schools.

Your committee also considers it inadvisable that games be played between pupils of our high schools and pupils of high schools outside of the city.

The committee believes that it is advisable that pupils take part in the state athletic meet.

While your committee is opposed to contests between different high schools, it is just as strongly in favor of all well-regulated classes or teams within each individual school. Boys in a large city need special outlet for their surplus physical energy; this fact school authorities should recognize. There is nowadays very little home labor. If neither the home nor the school provides physical recreation boys are likely to find in the streets the physical activity denied them at home or in school. This inevitably leads to questionable practices and uncertain morals.

Athletics within each school should be encouraged. The situation really demands, when we can afford it, that there should be a man in each high school whose whole time should be devoted to the physical welfare of the boys of the school. He should be something more than a teacher of gymnastics; he should be in sympathy with boys and be able to bring out the best in them; he should supervise their gymnastic training and conduct their sports on the athletic field.

Experience has shown that games within a school will increase active participation from 500 per cent. to 1,000 per cent. By proper classification on the basis of age, size, and experience, every boy can be brought into active participation in healthy games in which the spirit is one of emulation instead of strife.

In the meantime each school should endeavor to meet the situation by its teachers giving such time out of school as they are able to spare for such purposes.

The public generally must come to a realization of the fact that the city conditions have brought upon us new problems peculiar to this condition, which demand effective physical training not only of a few but of all pupils.

LOUIS P. JOCELYN, Ann Arbor, Mich.—It is better to control athletics than to abolish. In the public schools of Michigan we have complete control of athletic matters. A state league is formed governed by teachers and this has been very successful. No team can participate unless it has lived up to the rules. To be eligible one must have carried ten hours the preceding term and twelve hours the current term. No professional coaches are employed. While coaches are hired they have no authority over the team, to arrange games, etc. The governing board have all authority and arrange schedules. Moreover a teacher always accompanies the team out of town and if a boy visits the saloon or otherwise conducts himself in a disorderly manner he is removed from the team. At Ann Arbor we require all first- and second-year pupils and advise all the others to take gymnasium work. We divide the school into classes and have contests between these classes. Girls also have friendly contests among themselves.

MR. GILES, Marion, Ind., chairman of the State Athletic Association.—In Indiana we provide that a pupil shall carry fifteen hours both the preceding and current year. The state board of control has entire charge, and we can now say that athletics are clean. There is one exception that I would make to Michigan methods—namely, that of inter-class contests. Class spirit runs too high in small schools and is very objectionable. It is hard to control when fostered and you never know when you have it down. A club system is better. Other Indiana cities are in sympathy with the movement in Indianapolis, and are eagerly watching the outcome of the new arrangement. If successful that plan will be adopted in other Indiana cities. The development of class spirit leads to class rushes and class fights.

MR. RECARD, Indiana.—There is danger when high-school boys travel all over the state in athletic contests. When not permitted to go under the name of their school they form independent teams and go on their own responsibility without the restraining influences of a teacher. Two years ago I saw a team from a representative city marching through the streets and in and out of saloons stirring up the town and attracting everybody's attention. Teachers need to be on hand all the time and prevent such unseemly exhibitions.

MR. COOK, Hamilton, O.—Ohio too has had her troubles in inter-high-school athletics. The state is now thoroughly organized and matters are in hand. The state is divided in four sections: northwest, northeast, southwest, and southeast. I am chairman of the southwest district. Our regulations provide that no team can leave town without some teacher. This, with other good rules, has been tried for the last two years with good results. Our boys under these restrictions have conducted themselves in an orderly manner. Everybody is required to be up on fifteen-hour-per-week work without the fads and frills. Athletics are in the high school to stay and they must be properly controlled. But I differ from some of you. I believe in inter-high-school contests. Class contests lead to conflicts, struggles, and disgraceful class rushes sometimes. All this is of course in imitation of the colleges as were the objectionable high-school fraternities which in this state are happily outlawed if the present law is not declared unconstitutional.

C. E. ROSE, Boise, Idaho.—I think out in Idaho we are fully up to date in athletic matters. The conditions outlined in the paper are largely ideal. Not one school in a hundred could care for physical training as St. Paul's does. But all such matters should be regulated as well as circumstances allow. Control is much better than prohibition. In our school we add some moral conditions to the requirements for the team. No one who smokes or drinks is eligible.

SPENCER R. SMITH, Wendell Phillips High School, Chicago.—In Chicago, we go Indiana one better and require that a pupil shall carry sixteen hours work in both past year and current year, to be eligible to the team. One year ago the control of athletics was taken from the league entirely and placed in the hands of the principals. Instead of the seven or eight games scheduled formerly by the students, only three or four were arranged for. We allow but one game annually outside of the city. No prizes were offered. The game was played purely for sport. So far as I know both the faculty and the boys of the Wendell Phillips High School were satisfied with the plan. But other high schools refused to play us in the future on these conditions and we are forced to go back to the old régime if we are to play other schools.

As principal of the high school, I desire to have these matters under good control. But I want to see a larger number interested and benefited by physical training. For instance, in the Wendell Phillips High School only eighty out of one thousand seven hundred are actively interested in athletic sports. What attention should we give to the other one thousand six hundred? We have recently planned for a field day for this large number. This last field day was the third we have had and from four to six hundred of the student body participated in these events. While what I am about to say may be considered a digression, still it seems to me to be at least an indirect outcome of our field day in its development of the proper school spirit. At the close of the class day exercises in June, 1908, with proper ceremonies, we raised the class flag together with the flag of our country. This was done with perfect sympathy of the lower classes and with no spirit or disposition to interfere on their part as the flag of 1908 was raised with "Old Glory." This is an effort to dignify the class colors.

I believe that we should take athletics under our control for physical reasons. Pupils are not always honest in revealing their true physical condition and often enter a contest at the instigation of their fellows and sometimes even at the suggestion of their own parents when they are not in fit condition.

REPORT OF THE COMMITTEE ON SIX-YEAR COURSE OF STUDY

BY EUGENE W. LYTTLE, INSPECTOR UNIVERSITY OF STATE OF NEW YORK, CHAIRMAN

In 1893, the Committee of Ten representing subcommittees of ninety, chosen for the most part from secondary and higher institutions, presented its report on secondary-school studies.

So far at least as public high schools were concerned, that report was valuable mainly as establishing ideals, and ideals only for those subjects then deemed acceptable for college preparation. No report at all was made on such subjects as music, drawing, commercial, manual, and physical training. From that report we quote one sentence. "Any one who reads these nine reports consecutively will be struck with the fact that all these bodies of experts desire to have the elements of their several subjects taught earlier than they now are."

Eleven years later, at the St. Louis Exposition, it became painfully evident that the United States was almost the only considerable civilized nation that prolonged its system of elementary education to eight or nine years.

Since 1900 two of the most progressive nations of the world, France and Japan, have revised their national programs and both have virtually limited the term of elementary study to six years.

In 1905, at a meeting of the secondary department of the National Educational Association held at Asbury Park, it was voted to appoint a standing committee on Six-Year Courses of High-School Study, of which committee Gilbert B. Morrison, principal of the William McKinley High School, St. Louis, was chairman. That committee reported at Los Angeles in 1907 (see pp. 705–10, Los Angeles, *Volume of Proceedings*).

[Synopsis]

The question of dividing the twelve years of the public-school course equally between the elementary and the secondary school presents a twofold aspect: The first is educational or pedagogic; the second is economic. On the pedagogical side, while not unanimous, the trend of competent opinion is strongly toward such a division. The reasons for a six-year course are:

First, It would give the pupils the advantage of being taught by teachers specially trained for the different branches, the gain coming from the better teaching that results from the adaptation of the teacher to the work for which he is best fitted and for which he has made special preparation.

Second, The departmental plan extended downward to the seventh and eighth grades would give the children the advantage of daily contact with several personalities, instead of that all-day association with one teacher which often breeds an abnormal psychic atmosphere.

Third, It would give the pupils the advantage of laboratories in which elementary science might be begun earlier than at present.

Fourth, If in the high school, the manual training shops could be employed to start seventh and eighth grade pupils in this work without sending them off to another school in another part of the city.

Fifth, The modern languages could be begun earlier and continued longer than at present, making it possible to learn the languages by natural and direct methods.

Sixth, It would mitigate the present abruptness of the transition from the elementary schools, and check the loss of pupils at this critical period. The object of a six-year course is not to save time but to secure better adaptation and more natural growth, fitting the pupils better both for the high school and for college.

Seventh, It would cause more pupils to enter the ninth grade as it would remove what is now regarded by parents as a natural stopping-place.

Eighth, Six-year courses would make the system more self-consistent as shown by experience in the schools of Germany and England.

Ninth, It would give the pupil more time to prepare for college.

Tenth, It would do much toward solving the problem of the outward extension of the course of study and the crowded curriculum.

The economic aspect is not so favorable inasmuch as high schools are more expensive than elementary schools. But the difference in it would not be great. The economic objection will yield when the change is generally believed to be a necessity. The tax payers cheerfully provide the necessities at any cost.

G. B. MORRISON, *Chairman*
WILSON FARRAND
EDWARD RYNEARSON
J. H. FRANCIS
A. B. GRAHAM
Committee

It is well to note that within the present year, Mr. J. Edward Swanstrom, for some time president of the Board of Education in Brooklyn, and later a member of the Board of Education of Greater New York, published in the *Brooklyn Eagle* an argument for the adoption of the six-year course of elementary study to be followed by three years of work in the lower high schools plus three years in the upper grade or specialized high schools. In that article Mr. Swanstrom argues forcibly that his plan would not only increase the educational efficiency of the schools but would be highly economical for the city of Greater New York.

At least ten cities in the United States, for several years, have employed the proposed six-year division and believe it to be more economical.

Working along the lines indicated by growing educational opinion, your present committee has decided as follows:

1. To outline what may reasonably be required of pupils at the end of the sixth school year as essential to a preparation for high-school work.

2. To suggest for the seventh and eighth grades a minimum practicable course of study based on the experience and practice of the civilized world, to consume perhaps 70 per cent. of the pupils' time and to advise for the other 30 per cent., those elective which the best pedagogic thought and practice approve.

3. To recommend further careful investigation in regard to fixing points for vocational differentiation in accordance with local conditions and individual characteristics.

4. To recommend that promotions be by units of work accomplished rather than by years, thereby permitting the shortening or the lengthening of the time in which the course, nominally of six years, may be completed by pupils of varying ability.

I. WHAT SHOULD BE EXPECTED OF PUPILS AT THE END OF THE SIXTH SCHOOL YEAR—AGE 12–13?

A. *Reading.*—Pupils should be able to get the thought and express the thought in simple narrative prose and poetry, such as Robinson Crusoe and Paul Revere's Ride.

B. *Spelling.*—They should be able to spell correctly 90 per cent. of the words commonly used in their home and school vocabulary.

C. *Writing.*—They should be able to write legibly and with fair rapidity.

D. *Composition.*—(1) They should be able to compose and write a business or social letter, in conventional form, on a simple assigned topic that properly comes within the experience of children of their age. (2) They should be able to compose and write short descriptions and narrative on simple themes appealing to the natural interests of children and falling within their experience.

E. *Arithmetic.*—(1) They should be thoroughly familiar with number combinations (1–100) in addition, subtraction, multiplication, and division. (2) They should be able to solve easy two-step problems in arithmetic involving fundamental operation. (3) They should be able to read and write readily integers and decimals to six places. (4) They should be able to solve easy one-step problems involving common and decimal fractions. (5) They should have some knowledge of percentage and its simplest applications to profit and loss and to simple interest.

F. *Geography.*—They should have a general knowledge of (1) The oceans and continents, their relative size and locations; (2) Of the principal countries, their peoples and products, with a somewhat detailed study of the United States and its possessions; (3) Of the great river and mountain systems, specially those of North America, South America, Europe, and Asia; (4) Of 50 to 100 of the principal cities of the world, their location, peculiar characteristics, commercial, industrial, and artistic features of special interest; (5) Of the great trade routes.

G. *Other subjects.*—With the aim of starting as many lines of interest as possible, pupils during the first six years, should have instruction in drawing, music, morals, elementary science or nature-study, history, literature, calisthenics, constructive and illustrative hand work; but instruction in these subjects should be directed with the aim of developing habits of observation, power to think and power to do, rather than with the aim of imparting information of definite amount.

II. SUGGESTED LIST OF STUDIES FOR PUPILS OF THE SEVENTH AND EIGHTH GRADES, PERIODS 30 MINUTES.

Required subjects	Periods weekly
English, including spelling, literature, composition, grammar	6 to 8
Arithmetic with concrete geometry and algebra	5
Geography and history	5 to 7
Music	2
Drawing	2
Physical Training (required of those whose physical condition needs it as corrective; optional for others)[1]	2
Electives:	
Manual Training	3
Science	3
Foreign languages (for each one given)	5

It will be seen that the above list presents simply suggestions from which varying courses of study may be worked out, and correlated with courses now given in our high schools.

Your committee makes no claims for infallibility nor for superior insight or foresight. It presents these suggestions as the results of a year's faithful study of the problems before us all. It invites the fullest and freest discussion on the part of all educational bodies during the coming year that we may all gain more light. It respectfully requests that the work of the committee be continued.

E. W. Lyttle, *Chairman*
E. W. Coy
Oliver P. Cornman
T. A. Mott
J. H. Van Sickle
J. Stanley Brown
John H. Denbigh
Committee

ROUND-TABLE CONFERENCES

A. MATHEMATICS

THE TEACHING OF ALGEBRA IN ITS RELATION TO THE PRESENT EDUCATIONAL TREND

THOMAS K. MC KINNEY, PROFESSOR OF MATHEMATICS, WESLEYAN UNIVERSITY
MIDDLETON, CONN.

No subject more earnestly engages the attention of teachers of mathematics than does algebra. It is the most important as well as the most difficult subject to teach in the range of elementary mathematics. The difficulty to make the subject attractive has done much to hasten the change from the old régime of required mathematics in the freshman and sophomore years in college to the present elective system. The dissatisfaction felt by pupils was often shared by the corps of instructors. This situation, explicitly or tacitly recognized, has challenged the teachers and masters of algebra to consider anew the best presentation of the subject.

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[1] John H. Denbigh, Morris High School, agrees to the report with the single exception of that on physical training which he would require of all

The purpose of the discussion which follows is to point out certain forces which appear to be shaping the course of instruction in elementary algebra as indicated by recent texts. There is no attempt to make the discussion exhaustive nor to consider minutely details of arrangement or exposition. It attempts only to trace in merest outline the present situation and to point out certain tendencies which have assumed sufficient definiteness to be significant as to the present trend in elementary algebra.

Almost the whole of mathematics has been refounded in the last five or six decades. This has been done largely by European mathematicians in continuation of the work of Cauchy, Riemann, and Weierstrass.

On the side of analysis, the wide and rapidly growing domain of function theory bears witness to the necessity and the power of precise definition and exact logic in mathematical thought. As a foundation for this theory it was necessary to reconstruct the number system, to make explicit the meaning and the limitation of the fundamental operations of analysis, to give accurate definition to basal concepts, and to make definite all notions relating to infinite processes, particularly the notion of limit.

The first English treatise on algebra with which I am acquainted to show in a marked way the influence of this reformulation of the foundations of analysis is the *Text Book of Algebra* by Professor Chrystal (1886–89). In this treatise the operations of ordinary algebra are developed in conformity with the three so-called "fundamental laws" of algebra, as formulated by Gregory, DeMorgan, Hamilton, and others. In Part I is to be found, recast and rearranged, much of the matter in the ordinary college text. In Part II Professor Chrystal addresses himself confessedly to the task of preparing an appropriate introduction to "Infinitesimal Analysis" and, in particular, to the "Theory of Function."

The textbook was followed after an interval of nearly ten years by Professor Chrystal's *Introduction to Algebra*, designed in part as a preparation for the reading of his larger treatise. The *Introduction* may be characterized by its careful reference of the operations of algebra to the "fundamental laws;" by its thoro treatment of equations; and by its early and extensive use of the graph. The feature here emphasized is the clear light into which it brings the principles of algebra involved in the several topics treated.

As continuing this aspect of algebra the college text by Professor Fine (1905) may be mentioned. Its indebtedness to Chrystal is acknowledged. It aims to develop the theory of algebraic processes in an elementary manner but connectedly and rigorously. The first part is an elegant development of the number concept, which the author, with pardonable optimism, believes will be attractive to the college student. The second part aims to give a course in algebra, satisfactory from the theoretical standpoint, with a minimum departure from the order and matter of the usual text.

These texts have been mentioned with no thought of disparagement to the texts of other authors, nor is it intended to imply that the notable points of the texts referred to are confined to those just given. The purpose is to call attention to the trend in our texts of algebra to improve the statement and exposition of algebraic theory and these references are made to give definiteness and emphasis to this feature.

Among elementary texts there is likewise strong evidence of a purpose to bring the development into line with the modern theory of algebra. While not every elementary algebra has been an improvement in this respect over all its predecessors yet we are justified, I think, in saying that the advance along this line in the last two or three decades has been marked. The improvement in theory has enhanced the cultural value of the subject and added to its clearness and simplicity. But when the subject is given its ultimate simplicity and logical generality in abstract form it loses in attractiveness to the immature mind.

There is a strong and growing tendency to develop the concrete side of elementary algebra. This tendency is referred to in various phrases; such as "emphasizing the practical side of algebra;" "correlating algebra with its principle applications in mechanics, physics, chemistry;" "developing the subject in close touch with the affairs of daily life, enriching its content, multiplying its relations, and adding to its human interest." It is not intended to say that these expressions refer to the same phase of this tendency but rather that it is the one tendency viewed in several aspects that gives rise to these several descriptions.

This tendency has been accentuated by the great increase in the relative importance of the physical sciences in the secondary schools and colleges, in the last three or four decades. The complaint of physicists and chemists that students trained in the abstract symbolism of algebra so frequently failed absolutely in the simple concrete problems of elementary science was, in the main, well founded. This was recognized in some elementary texts by the addition of problems taken from mechanics and physics. The influence of technical schools has been in the same direction. They demand of the student a usable knowledge of algebra, questions of purely theoretic interest being subordinate.

Pedagogical influence has re-enforced this tendency. It is insisted that algebra is abstract, its concepts and processes consequently possessing wide generality. And because of this abstractness and generality the subject is difficult for the young mind to grasp. Consequently from this source there is a cry for the particular, for the concrete, the interesting. Awaken first of all the pupil's interest in the subject by dealing with the problems in which he is concerned. To the same end has tended the movement for the correlation of mathematics and the elementary physical sciences. This movement has made itself profoundly felt under the leadership of Klein in Germany, of Perry in England, and of Moore in this country. In this connection may be mentioned the so-called "laboratory method." According to Professor Young (*The Teaching of Mathematics*, pp. 100–4) this method "proposes that the experimental origin of mathematics be fully recognized; that the student be led to feel the need of the mathematical tool through some material experiment he has made or thing he has done." It goes further and proposes "that mathematics and physics be organized into one coherent whole the most extreme form of the proposition being that the reorganization be so thoro as to recognize in the secondary school no distinction between mathematics and its principal applications."

These several forces bearing on the teaching of algebra have influenced profoundly recent elementary texts. So far as my observation goes the indications are that these forces will continue to press in the same direction.

These then are the two main doctrines influencing today the development of elementary algebra; the one emphasizing algebraic theory, the other, for various reasons, the concrete field with which algebra may concern itself.

The dispute between the partisans of these two theories has been warm at times. In fact it has not infrequently seemed from the debate alone that the theories were mutually and absolutely exclusive. The earnestness of the debate may be taken as a measure of the estimated importance of the issues at stake. But in this controversy we have no interest other than to point that a process of adjustment seems to be in progress whereby the claims of opposing parties may be reasonably satisfied. This means, of necessity, some concessions by conflicting interests.

The nature of this adjustment, as I conceive it, is on this wise: Formal demonstration for the beginner is reduced to a minimum. Not until he has acquired some familiarity with a considerable number of algebraic concepts and processes is the formal side of the subject to be emphasized. Principles and methods are unfolded and explained by means of simple concrete examples. These may be taken from arithmetic, or geometry, or the elementary physical sciences, or statistics. The essential feature is that they be such as to appeal to the interest and understanding of the beginner and as to illustrate and enforce algebraic principles. The sect, the graph and other devices may be used to visualize or to suggest algebraic relations and methods. In the solution and discussion of these problems the logical aspect of the subject is illustrated and emphasized, losing thereby something in abstractness and consequent reach but gaining in sharpness, utility, and attractiveness to the beginner. On the other hand while the concrete side of algebra may be stressed for the beginner, it seems to be recognized that problem solving for its own sake, as an end in itself, is not the main purpose of algebra. A collection of problems, however interesting or useful, is not necessarily, *ipso facto*, a treatise on algebra. It is only as by proper devices they are used "to body forth" the theory of algebra that they assume their full role in elementary work.

An elementary algebra has just come to hand which develops the subject on the basis of the three so-called "fundamental laws" more nearly after the fashion of Chrystal's *Introduction* than does any other elementary text with which I am acquainted, and may, therefore, be classed with texts giving due prominence to the theoretical aspect of the subject. A notable feature of the text is the conscious effort to derive, illustrate, and enforce these "laws" and their immediate consequences in a concrete way. The illustrative examples are taken mainly from arithmetic and geometry, but the fact and the manner of their use exemplifies the point here emphasized; viz., the full and clear realization, whether the bias be toward the theoretical side or the practical that the best method of approach for the beginner is through and by means of the particular and the concrete. It is not here implied that this principle is new in either pedagogy or mathematics; it is the emphasis placed upon it which requires reference to it here.

It is difficult to trace this adjustment in detail in recent treatises on elementary algebra, partly because it is worked out in different ways in different texts and partly because it is not permissible in a paper like this to refer to a text in which the adjustment is worked out in a particular way and thus avoid an extended description. There are some features, nevertheless, to which attention may be called. It must be premised, however, that the features mentioned do not appear for the first time in recent texts. Again, it is rather the emphasis laid on them which entitles them to a place in this discussion.

1. *Algebra developed from arithmetic.*—Much care is taken that algebra shall grow easily and naturally out of arithmetic. Not only has algebra encroached on the old domain of arithmetic but the authority of arithmetic to lay down the rules for the combination of algebraic symbols is recognized. Certain portions of arithmetic are worked over in terms of algebraic symbols to give the student confidence with the new apparatus. Further, the various operations in a solution already familiar to the beginner can be easily exhibited by means of a formula. The pupil is thus early led to use the apparatus of algebra with assurance and to feel that its purpose, in part, is to throw a clearer light on subjects with which he is already somewhat familiar.

2. *Topics omitted or postponed.*—Certain topics which because of their abstract character are difficult for beginners, or which by their nature have little immediate application, are omitted or postponed. Slight stress is laid on the highest common factor by Euclid's method, factoring by means of the factor theorem, cube root and complicated surd and radical expressions, complex numbers, the binomial theorem with fractional or negative exponents. Elementary texts are to be found in which some or most of these are omitted. A wholesome influence has been exerted by the report of the committee of the American Mathematical Society on college-entrance requirements in algebra toward simplicity and a more rational arrangement of topics.

3. *The equation.*—In a recent text taken at random from the shelf and containing about six hundred pages, more than two hundred are devoted explicitly to the subject of equations. This does not include cases in which the equation enters incidentally. Yet this allotment of space is regarded by the author as so slight a departure from the established rule as to require no mention in his preface. It is greater, however, than the average in American elementary texts. In one or two foreign texts examined this proportion is greatly exceeded. There is, also, evidence of a disposition to subordinate all other topics to the equation. This procedure readily permits the concrete side of algebra to become prominent from the beginning and disposes automatically of a number of vexed ques-

tions on the arrangement of topics and the extent to which they shall be developed. It is well adapted to a preliminary discussion to be followed by a treatment emphasizing more fully the formal side of the subject.

4. *The graph.*—The graph is recognized as an important aid in elementary algebra both in the solution of problems and in illustrating and enforcing the idea of functional relation. To the pupil it visualizes certain algebraic operations and suggests to him the close interrelation of algebra and geometry, thus aiding materially in the correlation of these two subjects. It has won a permanent place in elementary algebra. Not only so, but in proportion as the significance of the concept of functionality for elementary mathematics is more fully and clearly recognized, as it certainly will be, the graph is destined to play an increasingly important role in elementary algebra.

5. *Correlation of algebra and physics.*—To what extent correlation of elementary mathematics and the physical sciences will be carried out it is difficult to say. Whether some scheme such as that worked out by the committee of the Central Association of Science and Mathematics Teachers will ultimately find favor, the texts examined do not permit us to predict. However, recent elementary texts on algebra, with rare exception, keep theory in close touch with elementary mechanics and physics. Five years ago just the opposite was true. The necessary definitions and explanations from these sciences occupy but little space. The increase in the number of interesting and useful problems is very great. The tendency, I conclude, is to admit them into good and regular standing, on the same footing as other problems, with only such remark as may be necessary for the explanation of the problems themselves.

In conclusion, reference has been made to the report of the committee of the American Mathematical Society on college-entrance requirements. This report will bear careful study both for what it gives and for what it omits. Its guiding principle, as I infer, is: Teach fewer things, more fundamental things, in a more concrete and intelligible way. In the remark that the report should be revised every ten years an important principle is recognized; viz., that elementary subjects and desirable methods and correlations in elementary instruction change with the progress of knowledge. Klein calls it the law of historical postponement, in consequence of which a domain which originally was certainly not elementary, nevertheless, by improved presentation, becomes in due course elementary. Obviously, too, elementary subjects may wane in importance both with respect to the theoretical aspect of the subject and with respect to utility in the practical affairs of life.

The present tendency, I think, is to recognize this principle in the elementary instruction in algebra, and to recast and readjust in the light of the knowledge and the needs of today. This is in harmony with the trend in other countries, in England, in Germany, and in France. Many, if not most, subjects and methods in algebra are easily understood in their simpler cases and applications. Whether the topics of algebra shall be taken in a conventional order and developed to the usual extent, or whether selection shall be made from a wider range with the limitation to what is really elementary in these subjects, and with a possibly increased interest and usefulness, is a question which authors of elementary texts, generally, seem to deal with somewhat gingerly. The situation is, however, worthy of study and there is, I believe, evidence of a tendency to examine it more exhaustively.

DISCUSSION

JOHN C. STONE, associate professor of mathematics, State Normal College, Ypsilanti, Mich.—Today the high school is not merely a fitting school for college but a finishing school for a large mass of students that are to go out to take up the world's work. With this new concept of the function of the school and of the various studies of the curriculum have come the questions: "What is this study for? What will it do for the student?" That is, the present tendency in education is to make each study function in the life of the student —to make it lead to something. The old time school-master who shields himself behind the screen of formal discipline or who yields to the demands of the examiner is fast becoming extinct. He will soon be classified among those of the tree-dwelling age or at least as a cave-dweller.

Yielding, then, to the demand of the times, some great changes have taken place in the teaching of algebra. On the side of the subject, there has been a growing tendency to make it scientific, to lay a foundation for it, to show how all the processes are but the working out of certain fundamental principles. Thus, for example, the student sees that the four fundamental processes are based upon certain "fundamental laws of number," that all transformations of equations are based upon certain axioms, that new concepts of number, or new kinds of number, arise when the narrower concept of the number known in arithmetic has been extended and generalized. Thus negative number arises from a generalization of the notion of subtraction, surds and imaginaries from generalization of certain other processes, etc.

The greatest improvement, however, has not come about by an attempt to make the subject scientific, but from our study of the child, a knowledge of the laws of mental growth, and our new concept of the function of the school.

The matter in any subject is now looked upon more from the standpoint of the student than from the subject, and even our teaching of mathematics is beginning to conform itself to psychological laws. We are making our algebra grow out of our arithmetic. In fact, at first it is but literal arithmetic. The first work is developed more inductively. We are making greater use of concrete material. We are leading the student to see the meaning of what he is doing and its use in work that is to come—the formulae of the industries, the sciences, and in the statement of problems.

To make the work concrete and attractive—to make the subject function with the individual and thus make it a course that may be justified by our present standards, I fear that some have overemphasized the problem side of the subject. I do not believe that the power to solve problems is the greatest aim of the course in elementary algebra. Few problems that arise in the world's work require an algebraic solution or are even made simpler by it. We are seeking rather to form a habit of thinking in general numbers. The solution of a problem, it is true, furnishes drill in using general number in analysis, and in the statements of the relations that exist among the magnitudes involved, but they are a means, not an end. The power to interpret fully the meaning of the general numbers of a formula or of an identity is of greater value than the power to solve a problem.

Teachers and writers of textbooks err, too, in conceiving that the cry of the scientist that the pupil can not use his algebra when he comes to the physical sciences may be stilled by the insertion of problems from those sciences. We are not seeking to make automatons by drilling upon problems of a certain class that may arise in certain courses, but are seeking rather so to develop the habit of thinking in general number that the conditions of a problem may be expressed in symbols, or that the formulae of the sciences may have a real meaning. To develop power to use algebra in the sciences then, does not demand problems from that source, yet, as a drill in the interpretation of general number and symbols, the formulae of the sciences furnish splendid examples. Such formulae help us to avoid the danger of allowing the general number to become the very special number, x, y, or z.

Problems, of course, have their use in bringing about this power to use general number, and if they are of the right kind they are full of interest. The first requisite of a good problem, however, is that it be concrete—that is, that the student is able to image the magnitudes involved and express the relations existing among them in terms of general numbers and symbols. As a matter of interest and value they should largely be problems of which someone, somewhere, at sometime, might reasonably wish to know the answer, and not those of the "hide-and-go-seek" order that still characterize our textbooks—problems, the answers of which must be known before the problems can be made.

In conclusion, then, we may say that we are seeking to make algebra function in the life of the student—give him power to interpret broadly the general number in the formulae met in the industrial world and in science, or to use it in analyzing a problem and stating the relations among the magnitudes as a conditional equation. Besides this, we are so to teach the subject that it may have a certain cultural value by leading the student to see the limitations upon which certain laws depend, and the result of generalizing other concepts.

THE TEACHING OF GEOMETRY IN ITS RELATION TO THE PRESENT EDUCATIONAL TREND

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A few months ago the principal of a well-known normal school said to me: "The teaching of geometry has become stale. Something must be done to put new life into it." This remark struck the very keynote of the present reform movement. That one has a right to speak of a reform movement in the teaching of mathematics, must be evident to any but a very indifferent observer. Nor is this agitation in favor of better teaching confined to our own country, and its effects are felt in colleges, universities, secondary and primary schools, with almost equal force. It is unnecessary to recite, before an audience like this, all the details of its origin and progress. Many of those here present could do that more impressively. It is sufficient to say that since Professor E. H. Moore's memorable address, in December, 1902, on "The Foundations of Mathematics," an ever increasing number of teachers have become actively interested in the pedagogy of mathematics. This is proved by the large number of associations of teachers of mathematics and science organized within the past five years, and by the numerous papers and reports published in that time.

A vigorous battle has been going on between the radical and the conservative schools, between individualism and dogmatism. By this time the smoke of battle has cleared away sufficiently to warrant a diagnosis of the case and, perhaps, a prognosis for the future.

Now, at the very outset, it is proper to ask: Is there any real need of a reform movement? For, to justify its existence, we must be able to point out sufficiently weighty causes. This, I think, can easily be done. Aside from the general reason of progress in every department of human thought and activity, some four or five additional factors are contributing to the state of affairs we are now considering.

1. In the first place, modern industrialism, with its demand for tangible success, has led to a great outcry for more practical school work. There is an increasing contempt of "mere theory." This feeling finds its expression in the establishment of trade and technical schools such as this beautiful city has the privilege of possessing. Geometry, as usually taught, furnishes a welcome target to the utilitarian educator. As a result, there is a growing fear that we may drift too far from the ideal of liberal culture and that the direct bread-winning power of a subject may be made the sole criterion of its usefulness.

2. Our large cities, the natural centers of industry, are also becoming great centers of population. Naturally, the struggle for existence is becoming keener. Many parents are now sending their children to the high school to fit them, in the briefest possible time, for a more comfortable life than they themselves enjoy. This has made the high-school population more diversified than ever before and the demands imposed upon the schools have grown more numerous from year to year. For the first time in history, secondary education is truly democratic. But it cannot be denied that the assimilation of so much raw material from homes giving no cultural impulses, and of so many students having no intention of entering higher institutions of learning, is one of the most serious problems of the high school.

3. More far-reaching than these changes of ideal and environment have been certain revolutions in school curricula and methods of instruction. The natural sciences have risen from comparative obscurity into great prominence. Their inductive method of investigation is considered by many as the great panacea for all our troubles. The influence of the laboratory method is undeniable. It is reacting, for example, on the teaching

of history and the languages. In so far as it insists on self-reliance and definiteness of results and is productive of greater interest, it is excellent. But it lengthens school hours, calls for costly equipment, and demands much outside work on the part of pupil and teacher.

4. It would be difficult, moreover, to overestimate the effect of the "new education." Its fundamental precept that all work must be arranged psychologically and adapted strictly to the child's power of comprehension, is eminently sound. But it has also given us the enriched curriculum and the doctrine of interest which replaces all objective standards by the subjective attitude of the child. Unquestionably this means at once a distinct advance and a very real source of danger. The complaint is not infrequent that in many cases the young are learning to depend too much on the inspirational powers of the teacher, that all real difficulties are carefully avoided, and that the very aim of all true education—to develop a strong character and to create self-activity and initiative—is thereby defeated.

During the past five years we have heard much of the social function of the school. A prominent professor kindly informed us that until exercises in spelling, mental arithmetic, and formal grammar should have become merely incidental and subsidiary, the high-water mark in teaching would not have been reached. It is exaggerations of this sort that rob many otherwise excellent ideas of their legitimate influence and place upon them the stigma of the faddist.

5. Last, not least, I must refer to the molding power of recent researches in the domain of pure mathematics. The labors of men like Pasch, Peano, Veronese, Hilbert, Klein, Russell, and others, are making it clear that the subject of rigor in geometry is one of extreme delicacy. It appears that our text-books are full of hidden assumptions and that their usual boast of rigorous presentation is ludicrous.

Standing in the very midst of this whirlpool of conflicting forces and tendencies the conscientious teacher of mathematics feels vaguely, though instinctively, that his subject is in need of repair. His feeling is one of unenviable uncertainty. The new situation makes great demands on his training. He does not know how to steer clear of Scylla and Charybdis, how to modernize and revitalize his subject in the face of the many obstacles that beset his way, not the least of which is represented by the inexorable requirements of examining boards.

Is there any way out of the difficulty? As in all similar cases, a compromise would seem to be the natural outcome. Perhaps, by noting first the readjustments that have already taken place, we may secure a clearer vision of our future course.

The old inflexible schedule of studies is giving way to a more liberal curriculum. This is a direct outgrowth of the doctrine of interest and of the new function of the high school as the people's university. Here also lies a great danger. Mathematics is one of the "hard" school subjects, and when it is placed in competition with other easier and more attractive subjects, the pupil naturally follows the line of least resistance. As a college president happily phrased it, he "abandons the Jerusalem of the calculus for the Jericho of economics." It has become a witticism that water does not flow down hill as smoothly as the delighted student picks his way through a long list of electives. In this connection the following passage, taken from the third report of the Association of Mathematical Teachers in New England (Boston, 1906), will be of interest:

> "That pupils and their parents are not awake to the importance of mathematics was shown conclusively by questions put to the principals of the Boston High schools in which the elective system is in force. In the English High and in the Roxbury High 25 per cent. of the entering class are taking no mathematics whatsoever. In the South Boston High 28 per cent. of the pupils have not made a year of algebra or geometry. In the Girls' High 53 per cent. of the first-year pupils, in selecting their studies, chose to take no mathematics—287 out of 544 girls; and in the East Boston High 165 out of 239 pupils in the entering class, or 69 per cent., are studying no mathematics."

Of far greater interest and importance are the efforts that have been progressing for some time to modify the compartment system in the teaching of mathematics by which algebra is placed in the first year, and geometry in the second. While he is studying geometry, the student promptly forgets his algebra, and during the third year he loses both algebra and geometry. Then, in the fourth year, we try to revive his interest by going over the same ground a second time. There is a great waste of energy in all this. I cannot regard the introduction of "non-preparatory" courses as a complete solution of this difficulty, even if such courses were possible in all schools.

The various correlation and fusion plans advocated so far have not been tested sufficiently to warrant their general adoption. In 1902, Professor E. H. Moore designated the unification of pure and applied mathematics as the fundamental problem. Mr. John C. Packard, a year later, predicted the formation of a new subject known as "everyday mathematics," by the fusion of physics, manual training, algebra, and geometry. This constitutes the very heart of the Perry movement. The practical realization of this scheme proved more difficult than was anticipated. So far as I know, it has been tried only in schools of unusual equipment, and even there has been only moderately successful. One impartial observer, after a careful inspection of the schools where this sort of correlation seemed to work particularly well, reported that the good results were due not to the plans as such, but to the consummate skill of the teachers who, in his opinion, could have made almost any plan a success. Mr. F. T. Jones of University School, Cleveland, expressed himself similarly a few years ago. The most significant utterance on this point is Professor G. W. Myers' report in *The School Review*, October, 1907, to which I must refer.

Although these experiments have not produced the results expected of them, they have by no means been useless. They have shown the teachers of mathematics their limitations, have awakened an interest in applied mathematics, and have greatly enriched our problem literature.

More promising than these forms of external correlation have been certain more recent attempts to secure a closer internal union of the various branches of pure mathematics. These efforts are still confined to a few high schools and colleges. So far as it is safe to draw conclusions from a very limited experience, the indications are that here lies our only hope of overcoming the compartment system.

I trust that I have now established the necessity and the actuality of a reform movement in the teaching of mathematics. We must proceed to consider what will be the probable outcome of the struggle so far as geometry is concerned. It is safe to say that whatever changes will occur, they will all be in the direction of greater interest, more applied work, and fewer technicalities. It is also certain that the teacher of geometry must revise his aim, readjust the subject-matter, and modernize his methods.

The one-sided theory of mental discipline, in the elementary course, must go. The over-insistence on discipline for its own sake has done incalculable harm to the interests of mathematics. It is well that we are beginning to realize this. The report of the New England Association mentioned above contains this lament:

> "The general impression is abroad that mathematics is of little practical value, and the result has been its neglect and the consequent loss of mathematical power on the part of the pupils."

Ours is not the calm repose of the Greek philosopher. Our civilization craves action, and a subject that loses contact with life is doomed.

It is a mistake to suppose that the high school can distinguish sharply between rational geometry and intuitive geometry. Their separation at this stage of the pupil's development is neither possible nor desirable, as Professor John Dewey has pointed out. In fact, what is rational geometry? The content of this conception is far from absolute. Says Professor Moore:

> "The teacher is teaching the subject for the benefit of the students, and it must be admitted that beginners in the study of demonstrative geometry cannot appreciate the very delicate considerations involved in the thoroughly abstract science. Indeed, one may conjecture that, had it not been for the brilliant success of Euclid in his effort to organize into a formally deductive system the geometric treasures of his times, the advent of the

reign of science in the modern sense might not have been so long deferred. Shall we then hold that in the schools the teaching of demonstrative geometry should be reformed in such a way as to take account of all the wonderful discoveries which have been made—many even recently—in the domain of abstract geometry? . . . . To make reforms of this kind, would it not be to repeat more gloriously the error of those followers of Euclid who fixed his *Elements* as a textbook for elementary instruction in geometry over two thousand years ago?"

Let us be perfectly honest about this matter. Let us give up that meaningless pretense of teaching rigorous geometry to boys and girls of fourteen or fifteen.

Is it not true that we are trying to crowd into a single year more material than the young student can possibly absorb? Think of the many definitions, the 160 propositions, the numerous corollaries and originals called for by the usual course. We can secure a mechanical repetition of these things, but do they become part of the pupil's mental armature? Should we not eliminate all that is not absolutely essential?

I know of no better criterion for this process than Professor Klein's definition of elementary mathematics: "In all domains of mathematics those parts are to be called elementary which can be understood by a pupil of average ability without long continued special study."

In the light of this eminently sensible definition, advanced by one of the greatest of living mathematicians, we can afford to omit those things which experience has proved to be of little or no value. There is a growing conviction that to this class of material belongs the whole subject of limits and incommensurables. Many secondary teachers, both here and abroad, have long been of this opinion. For information on this point, I may refer to the reports of the New York High-School Teachers' Association, of the New England Association, and the Central Association. It is a great pleasure to note that even the colleges are indorsing this view. In a paper published in *School Science and Mathematics* Professor H. E. Hawkes of Yale University says:

> "During ten years' experience in teaching geometry to students who have been in general carefully prepared by the best of teachers, I do not believe I have met a dozen who understood the theory of limits. This is not the fault of the students, nor of the teachers, nor entirely of the textbooks. The difficulty lies in the fact that we are trying to do something that can't be done. . . . . From every point of view that I am able to take, the theory of limits in elementary teaching seems a failure. If both secondary and college teachers suddenly discover that they agree on this point, the rest is simple."

Professor G. A. Miller writes:

> "It has become the fashion of textbook writers to call especial attention to the rigor of their presentation. Fortunately these claims are generally unsubstantiated. There are few things that would give more definite proof of the perfect unsuitableness of an elementary textbook than the fact that every step in the presentation was rigorous."

The time gained by such omissions could be devoted to the more significant topics, and would enable us to introduce at least a few interesting and valuable applications. The young student should not be expected merely to review formulas and recite theorems discovered ages ago. He has a perfect right to ask what it is all for. Fortunately, the geometry teacher, if he will take the necessary pains, need not fear this inquiry.

The desideratum seems to be such a judicious mixture of theory and practice that complete oblivion will settle on the definition according to which "mathematics is the science in which we do not know what we are talking about and do not care whether what we say about it is true."

Now I grant that the elimination of nonessentials is a serious matter, if left entirely to the judgment of the individual teacher. Each teacher is more or less of a hobbyist. I therefore suggest that the various provisional syllabi now at our disposal be submitted to a new committee of ten which is to work out a national geometry syllabus. I do not see why such a syllabus, if compiled with the greatest care by representative men, men in close touch with the colleges and the secondary schools, should not exert the same unifying influence that has characterized the publications of former committees of the National

Education Association. This national syllabus should be revised periodically, possibly every ten years. It should contain a carefully graded list of theorems. It should also give a discussion of disputed definitions, terms and symbols, and should offer advice as to methods of procedure.

This brings me to my last topic. More seems to have been written in the past five years on the pedagogy of mathematics, than during the preceding five decades. This is very reassuring. When many prominent mathematicians can devote so much of their energy to the interests of elementary mathematics, better times are surely coming.

It is encouraging that we are gradually seeking emancipation from textbooks, that the teacher really teaches. The genetic method and the laboratory mode are receiving their due amount of attention. There is an attempt to make the pupil a discoverer, to replace the reproductive attitude by a creative spirit. We are securing a better balance between oral and written recitation. Text-books, too, are improving in arrangement and quality of material. In short, there is progress all along the line.

In conclusion I would say that the present situation, more than ever before, demands a real teacher, a teacher of broad scientific and pedagogic attainments, who, in spite of many unavoidable disappointments, knows how to preserve his optimism. Never in the history of the world have the opportunities for sound training been greater, never has the absolutely unique importance of mathematics been more generally recognized, nor has there been more mutual sympathy and co-operation.

Many years ago an ardent admirer of our noble science, a romantic poet now almost forgotten, wrote these admonishing and inspiring words: "The true mathematician is an enthusiast, *per se.* Without enthusiasm, no mathematics. The life of the gods is mathematics. All divine messengers must be mathematicians."

DISCUSSION

RICHARD S. BEARDSLEY, Englewood High School, Chicago, Ill.—The success of a course in geometry depends greatly upon the interest and encouragement the pupil receives during the first two weeks. I well remember when I first began to study geometry how hard it was for me to see just what the author was aiming at, and how my classmates remarked that a great deal of effort seemed to be wasted on proving various statements that anyone could see were true. As an illustration, you probably remember that some textbooks on geometry start out with the proposition that all straight angles are equal. Half of the beginning pupils who attempt to prove that proposition will miss the point of the argument on account of their liability to confuse the straight angle with the straight line. It is my opinion that the first demonstrations in the textbook should be those dealing with the equality of triangles.

However, before the proving of theorems, I should have my pupils do a good many things in the way of drawing and construction. Mr. Squeers told Nicholas that after a boy was able to spell and define "winder" and "clean" he went and "cleaned the winder." So I should have my pupils learn isosceles triangle, equilateral triangle, right triangle, acute, right, obtuse, reflex angles, perpendicular, parallel, quadrilateral, pentagon, hexagon, by drawing them neatly on the board with a ruler and then labeling them. Then they might well be put in more permanent form on paper or cardboard. This construction work gives the pupils much necessary information and starts them into their course with enthusiasm. I might add at this point that instruction in spelling at this stage would save many a painful twinge when examination time rolls around.

An excellent teacher at the Englewood High School tells his pupils at the beginning of their work that geometry should teach them many things concerning the relations of lines and angles, etc., and that it also should teach them a method of proof. By the time his pupils have had him as teacher for a half-year, they realize the truth of his statement. The same man told me that he believed that the problems of construction which are usually placed at the end of a book or chapter of theorems might very well come at the beginning of the chapter, or else right along with the theorems to which they are most closely related.

The subject of incommensurables and limits I should omit from the first year's work or postpone until the chapter on regular polygons, which is studied during the last quarter of the year that is devoted to plane geometry.

I wonder if any of the teachers assembled here ever had any difficulty teaching their pupils the proposition that if two variables are always equal and each approaches a limit, their limits are equal. The best and simplest proof I know of is given in Milne's *Academic Algebra*. In their values the variables are but one. A variable can approach but one limit, hence it is the common limit of the two variables. I should indeed be glad to own a national geometry syllabus, and I should not consider it any infringement upon my liberties. I should be glad to know what the best teachers consider essential.

Mr. Betz says that he does not approve of the fusion, in the high school, of the various courses in pure and applied mathematics, and I agree with him. I feel that fusion would lead to confusion. I also approve of the closer union of the branches of pure mathematics, so that the student may have his attention called constantly to the essentials of each subject. One of the criticisms aimed at the present school curriculum is that we lack in concentration. But by occasionally bringing into the geometry magnitudes of a, b, or m units, the pupil will learn to apply his geometrical knowledge and review his algebraic and arithmetical rules at the same time. To do so may make a lesson less prosaic and anchor some useful fact in the pupil's mind.

As in other subjects, the success of a course in geometry depends more upon the teacher than any other circumstance. It is in the teacher's power to make geometry as dry as Ezekiel's valley of dry bones. On the other hand, the teacher has the opportunity to put vim into the work, to keep every pupil busy thinking and doing during the whole lesson period, and to interest them in hunting for new and original proofs.

Enthusiasm is a very pervasive quality; and if the teacher shows activity and spirit, it will be readily reflected in the attitude of the pupils toward their work. The principal purpose of this great association of teachers is to create and preserve a spirit of enthusiasm. I came here hoping to do my little part. I shall carry away much more than I brought. As each individual in a bed of live coals helps to keep its neighbors in a glow, so may we encourage each other to do our work next year with new zeal.

FLETCHER DURELL, mathematical master in Lawrenceville School, Lawrenceville, New Jersey.—Two movements or tendencies are noticeable in current secondary mathematical education: (1) the movement which demands that such instruction be more "practical," i.e., confer a greater and more direct bread-winning power on the pupil; (2) a demand that mathematical truths be imparted in a way to give greater cultural value, this latter taking the special form of a demand for greater precision in mathematical definitions, and greater rigor and generality in mathematical demonstrations.

These two tendencies are but local manifestations of general movements at work throughout educational practice and study as a whole. People at large are insisting more and more emphatically that secondary and higher education give the pupil a greater, or at least a plainer and clearer "direct bread-winning power." The latest expression of this view is the demand for a system of agricultural high schools throughout the land, distinct from the public-school system as a whole.

It is also insisted that education have a not less, but greater, cultural value. Voices are raised in warning that by changing education into something mainly technical we shall lose more than we shall gain. Make the pupil a man, say they, before you make him a workman. Teach the child how to make a living, but at the same time do not fail to teach him how to live.

The problem before us as teachers of secondary mathematics, therefore, is the same as that before the educational world in general; viz., to develop each of the above two functions of education in a more explicit and powerful form, and if possible to combine them closely.

The suggestion I would like to make is that, in order ultimately to make education impart both of these classes of utilities in the time at our command and without greatly increased expense, in ways adapted to various callings and situations, it is important to make a thorough study of the principles of utility, with a view to the discovery of more fundamental and inclusive ones than are now in current use. We need principles of utility which include narrow concrete utilitarian values and broad humanizing values as special cases. For instance, we usually think that we are teaching an important practical application of geometry when we teach the pupil to use the properties of similar triangles to measure the height of a tree by comparing its shadow with the shadow of a post of known height. Yet how many of us, or how many of our pupils who have learned the above process, have ever had occasion to measure the height of a tree, steeple, or other object by this method, or have ever earned a loaf of bread by so doing?

On the other hand, there is contained in the above illustration a principle of utility of fundamental and omnipresent importance but one which scarcely ever receives explicit attention. This is the principle of the value of an adapted auxiliary quantity in measuring another quantity or in obtaining any desired result. This principle is constantly used in the logical and cultural side of mathematics, as well as on its technical side; as also in cultural life and technical work of all kinds.

Other like principles of utility, which seem to be of more fundamental significance in education than prevalent ones, might be mentioned, but enough has been said, perhaps, to make clear what I have in mind. A philosophy, science, and art of utility and practicability are desirable before some of the current experiments in education are carried too far.

Perhaps mathematics, because of the explicitness of its concepts, the exactness of its methods, and its freedom from entangling relations, is the best starting-point and experiment-ground for such an investigation.

B. FOREIGN LANGUAGES

OBJECTIVE AIDS IN TEACHING MODERN LANGUAGES

ERNST L. WOLF, TEACHER OF GERMAN, WILLIAM MC KINLEY HIGH SCHOOL, ST. LOUIS, MO.

The reform movement, which for more than forty years has been the subject of discussion at meetings of this character, has, in my estimation, exercised a most beneficial and wholesome influence upon the theory and practice of teaching modern languages.

Breymann's *Bibliography of the Reform Literature* contains more than two thousand titles of books and magazine articles which appeared in print between the years 1876 and 1905, not counting the reviews, and replies, and not counting the papers presented at teachers' conferences, countless in numbers.

This cannot be surprising to those who realize the importance of the subject. "Die ganze Menschheit erst ist der wahre Mensch," says Goethe ("The whole of mankind only is truly man"). There is not a nation in the world but has a lesson to teach us well worth our learning; there is not a problem confronting the human race today, at the solution of which superior minds in all civilized countries are not working.

The merits of the reform movement would be inestimable even if it had not accomplished anything else but to arouse the teachers from the lethargy into which they had fallen, and to save them from stagnation and from slavishly following the path on which tradition was leading them.

As a result, we have now a different aim before us, viz.: a practical mastery of the foreign language, a mastery which, as far as possible, should approach or resemble that of the mastery of the mother-tongue; we now aim at teaching our pupils to speak, to write, and, above all things, to read books, as they read books in their mother-tongue.

Pronunciation is taught systematically thruout the course, particularly in the beginning; a new science, that of phonetics, has been put in the service of the teacher. Charts, representing the organs of speech and their position in producing the different sounds, facilitate the teaching of pronunciation. Our ideas in regard to the teaching of grammar have been modified. We no longer study grammar for its own sake as a "mental gymnastic," but only as a means of better using and understanding the written and spoken language, as a means to an end, an indispensable one, but not as the end itself. Grammar is no longer the queen dominating the course from beginning to end, but it has been assigned to the useful but, relatively, modest position of a house maid.

The ability to use the foreign language is no longer looked upon as a matter to be despised; in fact the colloquial part of the language is taught before the literary.

Reformers have taught us that the real intrinsic difficulty in learning a foreign language lies in having to master its vocabulary. This may sound like a truism. But reformers, rightfully, claim it as a new discovery.

Great attention is now given to the foreign country and the history of its people, their manners and customs, their ideas and ideals, their government and their institutions. In selecting reading matter, this aspect receives most careful consideration. In connection herewith objective aids of great variety are used. They materially assist in restricting the use of the mother-tongue to a minimum during the foreign-language recitation. It is this latter proposition which has caused the fiercest struggle because it is least understood. We may look upon translating from four different view-points, viz., as a method of teaching English, as a mental discipline, as a test for comprehension, and, finally, as a method of teaching a foreign language.

Reformers admit that the comparing of two languages is an excellent practice in English for the advanced student in college, but not for the schoolboy; they point to the Greeks and say "Greek literature takes such a high place in the world's literature, but the Greeks knew nothing of the practice of translating;" reformers say "You cannot teach two languages at once, any more than you can teach swimming and walking upon stilts, at the same time." But translating is also an excellent mental discipline; reformers admit it, adding, however, that their way of teaching affords equally fine opportunities.

Most reformers accept translating as an aid to comprehension and as a test for comprehension, provided, it is not made the rule but the exception.

Translating, however, as a method of teaching is, generally, rejected by reformers. The first reason advanced is "Translating cannot be the aim of instruction." The pupil should learn to read in the foreign tongue as in his own, i.e., to take in the gist of a sentence without paying much attention to the individual word, as he reads English books, he should learn to associate the foreign word with the thing for which it stands as a symbol. But this demand is not new.

In the report of the Committee of Ten, appointed at the meeting of the National Educational Association in 1892, the committee demand that "ultimately the student should be enabled to read French and German without the interposition of English."

Bagster Collins, in his book, *The Teaching of German in Secondary Schools*, says, "The importance that translation has assumed in modern language work is, to a great extent, traditional; the method of teaching the ancient languages was slavishly copied;" and, at some other place, he says, "We wish the technique of translation to fall into disuse as soon as possible, for, if practiced too long, it will ever be a hindrance to his really knowing a language."

Professor Grandgent says, "You will find that during the last year the greater part of your instruction can be imparted in the language you are studying."

Professor Edward S. Joynes says, "It is clear that our students should learn to read without translation. No one has ever read any foreign literature who has read it only through a translation—his own or any other. No reading is adequate until it can be understood at first hand, and in the form of the original."

I believe I may consider this first objection of the reformers against translating as well supported by safe and sane testimony. Translating cannot be the aim of instruction.

The second argument against translating is "Translating is an art, altogether too difficult to be practiced by school children, and possible only to those who have a ready command of both languages."

Translation is the most convenient way of explaining the meaning of a text, especially if the text is provided with a vocabulary. But is it not an illusion to assume that with these vocabularies, an essential part of the work is done by the student? Are these vocabularies anything but a new variety of the old familiar interlinear translations?

A translation must give the whole truth of the original and nothing but the truth; it must at the same time be idiomatic English—that is to say, it must not read like a translation. Assuming this to be attainable by our boys and girls—how about harmony and modulation and rhythm?

Translation, when fairly adequate, implies an almost equal command of the two languages. And even a good translation always remains open to criticism, because few English words embrace the full meaning of the corresponding foreign equivalents, *so-called* equivalents; no matter how good a translation, there always remains something that is untranslated, because it is untranslatable. Men who have penetrated deep into the spirit of the great writers and into the nature of language study, have given their verdicts against the advisability and even against the possibility of translating.

Wilhelm von Humboldt, poet, scholar, statesman, friend of Schiller and Goethe, wrote "Translating appears to me to be absolutely an attempt to solve an impossible task; for every translator will see his boat wrecked on one of these two reefs: either at the expense of good taste and of his native tongue, he will adhere too closely to the original, or, at the expense of the original, he will adhere too closely to the peculiarities of his native tongue. A medium is not only difficult but downright (*geradezu*) impossible."

Measuring a language by the standard of another must lead to disastrous results, and reformers have only reached the logical conclusion, when they keep the two languages isolated.

The third reason against translating is this, "It is not economical." To establish a permanent association between the foreign word and the object represented by it, must, it seems to me, be the aim constantly before our eyes. How can we hope to attain it if we spend *one-half*, perhaps more, of our time in teaching our students to do precisely that which prevents their ultimately establishing this association.

On the other hand, if instruction is carried on entirely in the foreign language, the student will learn German or French during the full recitation period. Professor von Jagemann has figured out that the amount of German a student will hear in each recitation over and above the text itself, during the school year, is equal to from one thousand to two thousand pages of reading.

It is hardly necessary to dwell at length on the character of translations offered by our pupils, if they are honestly obtained. It is neither German nor English, and "thinking in this hybrid tongue day after day must be educationally demoralizing." But fortunately, translating can be avoided and, herewith, I have reached my last argument against translating, i.e., "Translating is unnecessary; something better may be put in place of it."

> Das ist die klarste Kritik von der Welt,
> Wenn neben das, was ihm missfällt,
> Einer was eigenes, bess'res stellt.
> —GEIBEL.

Language—as I have said before—must be associated with the ideas of which it is the expression; from the very beginning this habit must be cultivated. It is easy enough to see how it may be done with the elementary and concrete part of the vocabulary by objects, models, actions, pictures. The vocabulary of the classroom, the common acts of school life, the use of the senses, almost all adjectives and their comparison, numerals, all classes of pronouns, prepositions, and a large number of verbs may be acquired by object lessons. The thing and the word, if sufficient practice is given, call each other up as readily as a ball rebounds from the cushion of a billiard table. The younger the student the more he is, naturally, interested in the concrete: the greater his interest, the greater will be his attention, the more readily his memory will retain what he has learned. But these exercises also afford ample scope for the practice of declensions and conjugation.

When the vocabulary of the classroom becomes exhausted, we must take recourse to models and pictures. The variety of models and pictures now offered by the European publishing houses is so great that I must refrain from enumerating any. When the habit of question and answer has become familiar, we may apply it to any text read.

There are those who speak slightingly of all conversational exercises, claiming that the ability to speak a foreign language is an accomplishment of little value. The capacity to express one's thoughts freely and directly in another tongue demands considerable intellectual activity; the effort to attain it affords far more "training" than excessive occupation with grammar; but the value of conversational exercises as a means of instruction is far greater; in a minimum of time they give a maximum of practice. Furthermore, the beauties of literary style can only be felt by their distinction from the talk of everyday life. Can anyone appreciate the simple grandeur of the language of the English Bible, who does not know how English-speaking people commonly express themselves? It is not saying too much if it is affirmed that the literary language is to a certain extent a dead language.

As already indicated, by asking questions on the text, the teacher can assure himself whether the student has understood its true meaning or not; but this will not suffice; pictures will materially assist him in explaining the unfamiliar words; they take the place of a dictionary. These pictures, however, serve another purpose, viz., they create the proper atmosphere in the class room. The mountain scenery of Switzerland, the feudal castle, its exterior and its interior, the pictures of the Swiss people—on exhibition before you—will at once put the class that is reading Tell in the proper attitude of mind.

I had well-founded hopes, at the time when I accepted the honor of appearing here before you, that this exhibit would be more complete. Mr. Rathmann, the assistant superintendent and director of the School Museum at St. Louis and the New York importers, Lemcke and Buechner, were intensely interested in the exhibit and promised me their most liberal support. Unfortunately, however, the place of this meeting had not been decided upon, and, consequently, it would have been unwise to provide for an extensive exhibit. Otherwise, I might have been able to show you charts for pronunciation, models and pictures representing an elementary vocabulary, maps and charts and pictures of geographical and historical character. There is not a person of note, not a place, not a building to which any historical interest is attached of which not good, even artistic, pictures at a reasonable price may be obtained. Of course, we must not lose sight of the fact that, hard as we may try, we cannot succeed in excluding English from the minds of our students; furthermore, that it is not impossible that the direct association may be established after the text has been translated. By the further treatment of the lesson in German, English may be made to recede more and more, many assert. I also admit that translating may be legitimately resorted to as an occasional aid to comprehension, or, as an occasional test of comprehension.

Personally, I always feel I am committing a crime when I use English in my work, and that I might have avoided it if I had possessed greater skill.

The last word on the subject, however, I am well aware, has not been spoken. Teachers all over the world are bending their efforts toward the solution of the problem, and I trust the day is not far away when we shall feel, in this country, as one of the members of the

Modern Language Association of England felt, who concluded his remarks at the last January meeting with these words, "Let it suffice to say that the members present were with very few exceptions thoroughly in favor of the reform method and that the reformers realized once more how much their methods and their aims were misunderstood, and vowed that they would shout them from the housetops until even the deaf should hear."

THE POSITION OF GRAMMAR IN LANGUAGE-INSTRUCTION

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Up to about the third quarter of the last century grammar, as a rule, occupied the center in all language-instruction. To master a foreign language was to master its grammar and in the study of a foreign language the part of speech was the basal unit, not the sentence. The elements were given, the whole was to be created largely by mechanical composition. The result was the conglomeration of words into often meaningless sentences. The resultant of such instruction was rather the understanding of the laws of the language than the power of using the language readily.

Now in the last quarter of the last century there began a movement with new ideals, new aims. A mighty contest between old and new followed. We are still contending, but we are able to distinguish clearly lasting good results of the victorious new movement. And one of these is the changed position of grammar in language-instruction. The living language is now the direct aim, no more merely its ingenious mechanism. The living language, at least to a reasonable degree, is to be mastered. No longer does it suffice simply to have a deep insight into the structure of the foreign idiom—the new movement emphasizes the ability to master it. Before, knowledge of the language was emphasized. Now, the ability to use it.

Is this position justifiable? Who should doubt it? Systematic education lies between two boundaries. The one boundary is formed by a line of developed forces, abilities and natural appetencies. This line is the basis of instruction. The other boundary is formed by the aim of education. Instruction and education move from the former toward the latter. Intelligence and experience, quickened by the congenial warmth of the human heart, determine the materials and the means best suited for the realization of the aim of education, as well as the sequence of their presentation.

Viewed in this way one thing seems to be particularly striking, being in sharp contrast with the older method; namely, that the teacher, the bearer of that intelligence, is the central figure. In giving the teacher this position the modern language movement shows that it is conscious of the truth which Quintilian expresses so tersely: "*Viva vox alit plenius.*"

While this position is not directly connected with the theme in question here still it gives valuable hints, and forms a basis for likewise valuable inferences.

But let us return to the given basis of instruction. The appetencies mentioned here are natural desires to know, to do, to master. These desires are directed toward units, or things that appear as units, not toward component parts that, too, are not directly objects of sense perception. So in language, the learner will never ask to be taught grammatical phenomena. The learner will ask to be taught Latin, German, etc. Nor does he come without a feeling of competency in this matter. Unconsciously, he bases his demands on the natural power of assimilation through vivid impressions. Thousands have acquired language by sheer force of assimilation. Our country in this matter presents a fine object-lesson.

Neither can grammatical knowledge be set down as the direct aim of education. The knowledge of grammar cannot be and is not directly used in life; it has no direct connection even with real life; it cannot be made an ultimate aim. To know only the grammar-side of the language is to know nothing of its beauty, or of its wealth

But to use a language correctly, intelligently, fluently will ever be a sign of real culture. And grammar can only in so far be important as it is able to help the learner to these qualities of language. It never is a *conditio sine qua non*—it will always be an important means to a greater end.

This new method of acquiring the language is eminently practical. It does not overlook the necessities of everyday life, nor the simplicity of everyday language. But there is no desire here to emphasize these two things especially.

Will it be further necessary to state expressly that the structural knowledge of the new language is to be gotten inductively? Hardly. But would such a course be practical? Certainly.

The deductive method of language-instruction retards acquaintance with the simpler language forms. Grammar and the live language, at least as far as material and aim are considered, become too independent of each other; the logical aspect of language receives too much attention; translation is too widely resorted to, rather as a means to make grammatical rules clear than to give fluency, correctness, and naturalness to discourse in the new idiom.

The *inductive* method avoids these drawbacks of the older method by placing connected discourse before the learner. Forms of words are recognized as means of thought-expression, even the meaning of the word becomes clearer in the light of its proper context. Translation is restricted to a wholesome minimum. The psychological nature of languages receives its due of attention. Since grammar is based on language units, sentence, paragraph, stanza, story, etc., it can not lose its connection with the language-material. This, again, means that only the necessary amount of grammar (frequency and importance determine necessity) be presented.

This method of instruction is in keeping with the ways of nature itself. Born into a multiplicity of things, we come through analysis to the proper insight of them.

One thing more calls for special mention: the reform-movement never accomplished its work by a break. The coherency of things remained established. The reform is simply a new order of things, a new articulation of materials, a shifting of emphasis.

There were times when the cry "Away with grammar" could be heard in large assemblies, but the conservative element remained calm. The stern sense of duty checked the fever of mere innovation, and made the finding of a rational basis and a natural method possible.

So in the new order of things, grammar no more holds a dangerous monopoly. Neither natural appetencies nor sane teleological reasons would admit of it. Facts, that each new day presents, give their approbation for the new secondary position of grammar.

The reform movement has greatly benefited language-instruction.

THE TEACHING OF ANCIENT LANGUAGES BY MODERN METHODS

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The modern ideal in the study and teaching of ancient languages is scientific simplicity. It was a desire for simplicity that began over a generation ago to produce our now universally-used first books, annotated texts, and selected vocabularies, supplanting the bare texts and unabridged lexicons with which our grandfathers began their study of the classics. Simplicity, concentration, definiteness, the elimination of nonessentials are the themes of numerous articles in the professional journals, and many books even are being issued, dealing with different phases of the subject, such as vocabulary or syntax, but all pointing in the same direction. The authors of the hundred-and-one First Latin Books now on the market agree in their desire to secure simplicity, even if they fail to agree in any other respect.

But all attempts at simplification, to be effective and not result in mere superficiality, must be based on scientific principles. Text-book makers and class-room teachers must see to it that their short-cuts square with the facts and must not be carried away with a laudable desire "to make the rough places plain." Genuine scholarship and the scientific point of view are needed, and needed in beginners' work as well as in university courses. In this scientific age a rational statement of the facts of a language in our textbooks and a scientific attitude on the part of our teachers will aid greatly in keeping the classics in favor along side of the laboratory sciences. And a true scientific attitude will not only secure a greater respect for our work, but is the only means by which the much-to-be-desired simplification can be successfully effected. True scholarship and effective pedagogical method do not conflict. The results of historical and comparative study in philology have already aided greatly in the simplification of language study. For example, the recognition of Sanskrit as a sister language of Greek and Latin in the great Indo-European family has practically solved the complicated problem of the Latin ablative, by showing its threefold nature. The classification of ablative constructions as separative, sociative, and locative is implicit in all modern grammars and should be more widely employed in all elementary work.

The problem placed before the student in his first year is purely linguistic. This is only slightly less true in his second and the succeeding years of secondary Latin or Greek. Antiquities, history, and even literary appreciation are not of first importance. These are incidental and may be obtained in more economical ways, while the chief aim should be a conscious study of language for language's own sake—for the sake of clearer thinking and a more intelligent use of one's own mother tongue.

In this paper, therefore, I shall deal only with some of the purely linguistic problems, more particularly syntax, though I am not unmindful of the excellent results of historical, archæological, and antiquarian studies, by which work in the classics has been so greatly enriched. More particularly still, I shall consider the problem of case and mood constructions in Caesar, the first real foreign-language reading undertaken by the vast majority of our pupils. The taking up of Caesar is the young scientist's first "field trip" and his first opportunity to test the knowledge he has gained in the first year's work. And it is just here that the most skilful guidance is needed to save him on the one hand from the notion that language is a purely mechanical and artificial sort of thing, to be worked out by the puzzle method, or, on the other hand, from the equally fatal idea that language is absolutely lawless and he had best consider the whole affair a guessing contest, first and last. The question is, "How much syntax shall be taught to pupils in Caesar?" My answer is, "Teach all there is there, *but no more.*" Whatever else will result from a detailed study of a given author, such as I am here suggesting, the pupil will be shown what constructions to learn, and the teacher will be shown what *not* to teach. At this point in his work the pupil knows or should know a case form when he sees it. He knows or should know that a nominative case is used either as a subject or predicate. Can he be helped to an equally sure knowledge of the only slightly more difficult uses of the other cases? The chief danger is that he will become confused and needlessly alarmed. I have had pupils and teachers, too, for that matter, estimate the number of different case constructions which they rather expected to find in a given book of Cæsar as high as 150. It is just here that an out-and-out laboratory method, namely an observation of the facts presented in the text being read, a classification of those facts, and deductions therefrom, is a plan which the writer has found most effective with pupils who have already gained the elements of a language. The exhibition and preservation of these classifications in chart form has served to make the work more definite and concrete. Such a treatment of case constructions as is herewith presented (see table, p. 647) furnishes the pupil with all the grammar necessary for case constructions in the passage under consideration, and furthermore, what has been found sufficient for any such passage, with only minor changes, will be found sufficient for all the pupil's work in the language. With the forest thus cleared of imaginary foes of unknown

CASE CONSTRUCTION IN CAESAR *B. G.* III.

277 NOMINATIVES in Caesar III used as:	
(1) Subject (*a*) of Finite Verb^{1}	269x
(*b*) of Historical Infinitive^{4}	2x
	271x
(2) Predicate^{1}	6x

In chap. 1—18 constructions first appear
2—3
3—3
4—2
5—3
6—2
8—1
9—1
10—1
11—1
13—1
15—1
19—1
22—2
23—1
In chapters 1 to 23—41 constructions.

219 GENITIVES in Caesar III express:	
(1) The Whole^{1} (Partitive Gen.)	19x
(2) Possession, etc.^{1} (Includ. Subj. Gen.)	153x
(3) Composition or Material^{2}	22x
(4) Description (*a*) Quality^{3}	8x
(*b*) Measure^{12}	2x
	10x
(5) "Object"^{5} (Objective Gen.)	15x

71 DATIVES in Caesar III express:	
(1) Indirect Object^{1}	20x
(2) Various Relations with Compound Verbs:	
adiungo^{2}	1x
occurro^{6}	1x
adscisco^{9}	1x
praeficio^{11}	2x
adaequo^{12}	1x
praesum^{14}	2x
insero, adfigo^{14}	1x
accido^{22}	1x
	10x
(3) Various Relations with Certain Verbs:	
persuadeo^{2}	2x
placeo^{3}	1x
studeo^{10}	2x
noceo^{13}	2x
confido^{25}	1x
	8x
(4) Purpose^{3}	5x
(5) Reference^{6}	18x
(6) Agency with Fut. Pass. Part.^{10}	5x
(7) Various Relations with Adjectives:	
proximus^{11}	2x
adversus^{14}	1x
finitimus^{20}	2x
	5x

434 ACCUSATIVES in Caesar III express:	
(1) Direction *in*^{1}	53x
ad^{1}	51x
(Inc. Place Whither)	104x
(2) Direct Object^{1}	225x
(3) Subj. of Infinitive^{1}	57x
(4) Space Relations with	
per^{1}	8x
propter^{2}	15x
praeter^{3}	1x
intra^{6}	1x
proximus^{7}	1x
inter^{8}	2x
ad (at, etc.)^{9}	2x
apud^{9}	2x
contra^{9}	3x
post^{10}	1x
ob^{23}	1x
	37x
(5) Degree^{3}	7x
(6) Duration of Time^{5}	1x
(7) Extent of Space^{19}	2x
(8) Predicate^{22}	1x

127 FROM-ABLATIVES in Caesar III express:	
(1) Separation Place Whence etc. *ab*^{1}	15x
ex^{2}	37x
—^{4}	9x
	61x
(*a*) Developed from Separ. *de*^{3}	6x
pro^{9}	7x
sine^{21}	3x
	16x
	77x
(2) Agency, *ab*^{1}	19x
(3) *Cause —^{1}	19x
de^{2}	5x
	24x
(4) Comparison^{5}	1x
(5) Material, *ex*^{13}	2x
(6) Point of View, *ab*^{22}	3x
(7) Accordance, —^{23}	1x

229 WITH-ABLATIVES in Caesar III express:	
(1) Accompaniment *cum*^{1}	18x
—^{11}	1x
	19x
(2) Route^{1}	6x
(3) Attendant Circumstance *cum*^{1}	4x
—^{4}	4x
	8x
(4) Ablative Absolute^{1}	129x
(5) Means^{1}	44x
(6) *Description^{4}	4x
(7) "Object" of	
utor^{8}	2x
fruor^{22}	1x
potior^{24}	1x
	4x
(8) Degree of Difference^{9}	10x
(9) *Manner, —^{15}	5x

92 IN-ABLATIVES in Caesar III express:	
(1) Place Where *in*^{1}	50x
—^{2}	8x
sub^{16}	3x
	61x
(2) *Specification^{4}	12x
(3) Time When^{6}	12x
or Within Which^{12}	7x
	19x

NOTE—The constructions in each column are given in the order in which they first occur in Book III. The superior figures at the right indicate the chapter. A dash indicates the absence of a preposition 269x means 269 times. The total number of constructions is 41. The total number of substantives, including appositives, is 1449.

*Constructions of composite origin, repeated from above, where they are grouped for convenience:

Cause^{1} (*from* or *with* or *in*), often indistinguishable from Means.
Specification^{4} (*in* or *from* or *with*).
Description^{4} (*with* or *from* or *in*).
Manner^{15} (*with* or *from* or *in*).

case constructions, the pupil can go calmly about his work, surrounded by such old friends as nominative subjects and accusative objects and the almost equally well defined uses of the other cases.

This table of case constructions is an attempt to reproduce in type a wall or blackboard chart which I invariably have the pupils help me make up for at least one book of Caesar. There are several points of which I wish to speak. To begin with, this scheme, with its seven columns, is the graphic form in which I seek to have the pupils think of the case uses. I have chosen to present the facts for Book III in this discussion, among other reasons, because no vocatives or true locatives occur, and because the order in which the constructions in each column happen to appear in this book are almost ideal. The totals are not essential and are added here only as items of interest. The formula employed, for example, "Genitives in Caesar III express the Whole, Possession, etc.," seems to me less confusing to the pupil than to speak of a genitive as partitive or possessive. In fact, I try to get the pupil to take up every substantive in the first two or three chapters and then to tell just what idea the case form actually does express. When he has told that he has named the construction. Opinions often differ, and the traditional categories are not always forthcoming. So much the worse for the categories! However, influenced by the technical terms met with in the first year's work and by the notes and grammar references in the text book, the pupils come to sufficient agreement to start the chart, which then grows under our hands as we proceed, new categories being added as they seem to be needed. The chart herewith presented is a finished product of class-room work, with the exception of the totals, which are my own addition. These totals are the result of somewhat arbitrary classification in many instances.

In class work the pupils are shown that if a construction is only placed in the proper column that is often the best that can be done. It is easy thus to show how one construction merges into another, and how one construction grows out of another. Here, too, is illustrated the fact that the categories we employ are not always due to fundamental classifications in the one language but may have their practical value only because of a difference of idiom in the two languages. Examples of this sort are ablatives expressing agency, or point of view, both clearly separative to the Roman consciousness, as is shown by the regular use of the separative prepositions; but our English idiom requires "by" for agency and "at" or "on" for point of view, hence the practical value of separate categories for these constructions. Another case in point is the objective genitive here given as a separate construction, because in English this idea is so frequently expressed by the use of the prepositions "for," "to," "toward" (direction words), "love for one's country," for example. On the other hand, the subjective genitive is regularly translated, as is the genitive of possession, by the prepositional phrase with "of," or the English possessive case, and thus requires no special mention. Again, ablatives expressing accompaniment, means, description, manner, attendant circumstance, and even the ablative absolute may nearly always be best translated by the use of the English preposition "with." I know no better way to impress the essential unity of the several constructions within such a group than by "ringing the changes" up and down the column, using English examples, such as the following (see the next to the last column of Table):

He came with a friend (accompaniment).
He came walking with a cane (means).
He came with great speed (manner).
He is a man with great influence (description).

Further, such examples as: "He came with my consent," or "with his books strapped together," or even "*with* his books lost," (really *without* his books, and equal to "his books having been lost") show the easy transition from the slightly associative construction of attendant circumstance to the ablative "absolute" construction. The other two constructions in this column, route or way by which, and degree of difference are easily seen to be developed from means and might well be given as (*a*) and (*b*) under that head. However, the effort is to avoid too great complication, and a word of explanation in passing is all that is needed to justify the present grouping. Similarly, in the accusative column, degree (how much), duration of time (how long), and extent of space (how far), in reality the same thing, are here given separately, because it is important for the pupil in each instance to recognize the specific idea which the case expresses.

Without going farther into details, let me call attention to some of the suggestive facts shown in the chart. There are 1,449 substantives in the 29 chapters of the book. There are 41 different constructions as here classified. All these appear in the first 23 chapters, and 18 of them in the first chapter alone (see the first column). These 18 are, of course, the more common constructions and, as a matter of fact, are the ones to which 1,279 of the 1,449 substantives (or 88 per cent.) are to be referred. These oft-repeated constructions, the pupil can easily see, are eminently worth his acquaintance and on the other hand the rarer constructions can be easily impressed as they appear because of their very rareness.

The reassuring thing about such a plan is that, with only slight changes in detail, it will work equally well for any book in Caesar or, for that matter, for any other Latin reading. Passages of equal length in Cicero have even fewer constructions. I have even used this same chart with Greek classes, the from-ablatives, of course, becoming genitives, and the with- and in-ablatives, datives. In the remaining three books of Caesar only eleven other constructions are to be found, making a total of 52 for the four books usually read.

By a similar method all the uses of the subjunctive can be shown on a single page. The subjunctive in independent clauses does not occur in Caesar I–IV, and the scheme resolves itself into a classification of clauses which have their verbs in the subjunctive. The first division is between the fundamental ideas expressed by mood: volition, anticipation, possibility, etc., and the various kinds of facts. Within these groups further classification is made according to the form and function of the clauses.

WHAT CAN WE DO FOR THE TWO-YEAR PUPIL?

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To some of us who eagerly frequent doctor and sage and hear great argument about the purpose and methods of teaching Latin in the secondary schools it seems that one important point is usually ignored; this is that the large majority of those who enter high school spend only one or two years there. Unhappily there is no room for difference of opinion with regard to the large number of pupils who drop out of high school after but one or two years. Up to this time very little special cognizance has been taken of these pupils in the planning of the Latin course, yet these are the very ones, perhaps, who should be considered with greatest care. Very, very few of them will ever again do any systematic studying. In view of this the little time they have with us seems so infinitely precious that it would be appalling to feel that a fifth of that time were nearly thrown away.

In order to determine, if possible, why we do not despair, let us ask ourselves what we may hope to give in a two-years' course. A knowledge of Roman life and literature? In its best form, the sense of kinship which can be gained alone by the study of the language which is the outgrowth of that life? Yes. For all else—the complete series of historical events and the philosophy of them, we cannot hope to give in two-years' time what the history teacher can do in a few months. Is it possible in this period to enable pupils to read Latin fluently, or with pleasure? Certainly the brightest ones will be able to reach Caesar with a fair degree of ease, yet we would not hope that even they would be able to translate Cicero, Horace or Virgil without difficulty and further study.

Viewed from these two aspects of general information and ease in reading, two years of study seem to yield small returns. What then can be our justification for it? Shall we content ourselves with the glib phrase "Latin gives such excellent mental discipline?"

In these latter days the glitter has quite gone from this one useful specious tenet of Classicists. Far from diminishing the value of Latin, the newer point of view makes it greater in relation to other subjects in the curriculum than it was when the doctrine of general discipline held sway, for this reason: While we deny that the specific can function as the general in unrelated groups, it is conceded that in related ones it does. Herein lies the enhanced value of Latin. Before, Latin, along with other languages, shared in common with many other subjects the general claim that its study would give valuable training in general memory, reason and judgment, inductive and deductive. Now we make the unhesitating claim that our work operates to any extent only in its own group, viz.: language; yet how strong a claim this leaves us can be appreciated readily if a thought be given to the important part played in life by language. The whole world at all times is a woman—when it thinks it speaks. Written and spoken expression is the natural consequent of thought. That subject which gives power and variety to this indispensable means of self-expression and communication has surely no mean place in the list of educative subjects.

While this claim is justly made for any language, it seems not too much to assert that inasmuch as language is based on thought-relationship, that language which reveals this relationship most clearly is of greatest value. Undeniably an inflected one makes this revelation in a more illuminating way than does an uninflected one. Its very nature forces the pupil into conscious realization of the value of each separate thought in relation to the others. Because of its influence on English, Latin stands high in the list of studies for these short-course pupils under consideration.

Again and again we hear teachers of higher classes in science and mathematics, as well as literature, say that they prefer the Latin pupils, because, to quote their words' "The Latin pupils know how to read English. They can get the thought out of difficult passages in which the other pupils flounder helplessly." In addition to being better able to grasp the thought of another, our pupils are certainly better able to give a clear statement of their own ideas—have a larger and more discriminating vocabulary and greater facility of expression. An article on oratory by Senator Hoar, published in the June *Scribner's* of 1901, may prove interesting in discussing the value of Latin for English. He says, "In my opinion, the two most important things that a young man can do to make himself a good public speaker are: first, constant and careful written translations from Latin or Greek into English: and second, practice in a good debating society." He goes on to point out that nearly all the famous English orators have given much attention to careful translations from Latin into English and that Cicero devoted much attention to translations from Greek into Latin. He declares the value of translation is very different from that of original work.

The explanation which Senator Hoar gives for his statement that the value of translating from Latin into English, in getting command of good English expression, can hardly be overrated, is in substance as follows: The explanation is not far to seek. You have in Latin the best instrument for the most precise and most perfect expression of thought. Having got the idea into your mind with the precision, accuracy and beauty of the Latin expression, you are to get its equivalent in English. Suppose you have knowledge of no language but your own. The thought comes to you in the mysterious way in which thoughts are born, and struggles for expression. If the phrase that occurs to you does not exactly fit the thought, you are almost certain, especially in speaking or in rapid composition, to modify the thought to fit the phrase. Your sentence commands you, not you the sentence. But the conscientious translator has no such refuge. He is confronted by the inexorable original. He must try and try again until he has the exact thought expressed in the English equivalent. This is not enough. He must get an English expression which will equal as near as may be the dignity and beauty of the original. This practice will soon give him command of the great riches of his own noble English tongue, will add beauty to his style and cause the process of thought itself to grow easier.

Fortunately for the purpose of teaching language-structures the interdependence of words is forced upon the first-year pupil with every Latin sentence he forms. Nowhere in the course is it so important to have instructors of thorough training along the grammatical side of Latin. Only such an one can teach the underlying thought of case and mood, thus unifying what might else seem to be arbitrary sets of rules. For example: appreciation of the adverb form of the ablative and the adjective use of the genitive will aid immensely in the use of these cases. The subjunctive, too, may be robbed of many of its horrors if the basic thought which underlies the mood be made familiar to the pupils. Though the force of individual words may be better understood, unless they be combined in the best form of English expression we shall have neglected a very important part of our task. No translation of the simplest sentence should be accepted unless it is expressed in good English, idiomatic English if need be.

It may perhaps be feared that, in laying so much stress on language-structure and translation during the first year, both interest and the work in forms will suffer. This need not be so. It is not difficult to arouse enthusiasm in pupils for good English expression, even while working with disconnected sentences. As to forms, the absolutely indispensable part of our first-year work, they and interest can surely be combined. Each teacher will find his own method the best for him. There is, however, a *sine qua non,* which is that the teacher shall with all his heart believe that the teaching of Latin is at least as worth-while as the teaching of the other high-school subjects and shall come before his pupils as if he had something for them worth their best attention. The first-year pupils come into the Latin class with minds filled with the lesson they have just recited, or with the conversation which they have just shared on their way to the Latin room. If an apparently uninterested teacher sits or rises before them there is certainly no quickening of their Latin interest. This teacher calls perhaps on one pupil for the translation of a sentence, on the next for another sentence, and so on. In this way perhaps half of the recitation will have passed and some of the pupils will as yet have taken no part. We may hazard a guess that many of that half are still wool-gathering, giving just sufficient attention to know when their names are called. Let us now suppose that an alert teacher, filled with love for his work and conscious of its value, is before the class. Let him give a rapid fire of questions which can be answered in a word or two. In a moment every pupil is aroused. Latin consciousness awakens and all are in a fair way to receive benefit from the entire lesson, instead of some small part of it.

If the work of the first year is to be done thoroly—and if it be not so done all is lost—we must go over the same matter again and again. How urgent then the necessity for variety in presentation. This is especially true in the drill on forms. To illustrate: A declension may be recited *in toto* by one pupil, or one may be asked for the nominative, the next for the genitive, and so on. Or the Latin case-ending may be given and the pupil required to give the name of the case, or vice versa. A number of the class may be sent to the board and required to write the same declension or tense, as a comparative test of speed and accuracy. One may line up the pupils like an old-fashioned spelling match and have a rapid review on forms. There are a hundred different ways of achieving variety in the presentation of the regular, fundamental work, and the interest which follows is sure to bring greater attention. Just here it may very well be asked whether we shall devote all our energies to teaching the structure of the language and felicitous translation, depending only on our varied presentation of the pure subject-matter to insure the interest necessary to good work, or shall we reinforce these devices with some attention to history, archaeological matters, too. The experience of many Latin teachers seems to show that a reasonable amount of time spent in dealing with matters of general interest improves rather than lessens the character of the harder, more definite work.

Among these different devices for arousing interest none is more vitalizing than training in intelligent reading aloud of the original and the translation of it from the spoken Latin. Those teachers who say they have no time for such things—that it takes all their time to beat in the necessary facts—are surely giving up the greatest time-saver in the whole system of education; viz., interest.

In the reading of Caesar, the chief difficulty lies in the long, complex sentences. While their mastery is essential to success in Latin, this mastery is also of great importance in English, whether in English literature or in the study of other subjects written in English. The question arises as to the best method of gaining command over these inverted sentences. One method is that of direct attack—the careful study of subordinate clauses one by one—devoting entire lessons to the consideration of the different kinds and their combination, without scattering our energies at that time by attention to translation of aught else, save as it bears upon the matter in hand. If in connection with work of this sort we, for a time, make a careful analysis of each involved sentence met, we may hope to see our troubles rapidly grow less.

It seems reasonable to make our prose work of such a character that it will aid in overcoming the chief difficulties our pupils have to meet *at the time when they are meeting them.* A glance at prose books designed for second-year work will show how little some of them do this. While the Caesar students are struggling with indirect discourse, indirect question and command, various constructions of purpose, etc., many prose books offer work on ethical datives, constructions with interest and refert and other points quite beyond the second-year pupils' need or comprehension. Practical experience proves that the pupils are willing and interested in working on prose that will help them in understanding the Latin with which they are concerned, while none but the hopelessly linguistic care for discussion of abstruse points which have but little practical bearing on the rest of their work. *Let us then adapt our prose to our pupils' needs.*

As in the first-year work, nothing but a good degree of excellence should be allowed in the translations. Pupils are not slow to admit that only good English can be regarded as a translation of good Latin. If the Latin were faulty imperfect English might be satisfactory, but in rendering Caesar's clear and concise style nothing but clear and concise English can be adequate.

We would probably agree that the habit of having translations often written on the board is perhaps the best means of improving the pupils' style. When written out before their eyes, they realize faulty structure and expression far better than from the spoken word.

As in the first-year work so here variety of presentation proves interest-promoting. If we begin with the review one day, let us then, next day, begin with the advance lesson or with rapid work on forms or constructions. If the pupils one day translate the review from hearing the Latin read, the next day let them read the Latin intelligently with intelligent expression, or write the Latin from dictation. We all know dozens of ways of varying the monotony, but do we remember to use them?

Collateral work is of decided importance in the Caesar year. With some classes notebooks on particular points of interest prove useful. The building of bridges and engines-of-war, the making of maps, etc., rarely fail to be successful in improving the general tone of the work.

Some study of Caesar's life I should count as most important, since a sympathetic attitude toward the author works wonders. Throughout we take for granted that balance is maintained and that we remember always that our main purpose is the study of the language for itself and for its illuminating influence on all language.

We claim for the two-year course some gain in culture, fair facility in reading Caesar, but chiefly such an increased sense of language-structure as will operate in any and all other languages and be capable of expansion along its own line, if opportunity affords.

Will the four-year pupil be better or worse for having the teaching during his first two years directed toward this latter end? Better, some of us believe, for the average student will then enter upon the study of Cicero with ability to gain the thoughts from even involved Latin sentences—with strength and skill in overcoming structural difficulties.

With these difficulties fairly mastered, we can expect of them appreciation of Cicero's wonderful literary style and the poetic thought of Virgil, "the lord of language."

Now, indeed, our task is not merely one of interest but of joy, for now in truth we are ready to read Latin for Latin's sake, to appreciate the beauty of literary form and the melody of golden speech.

It is safe to say that nearly every pupil who has been well trained during the first years will delight in Cicero and Virgil. If they go on into college Latin they probably will find not merely an inspiration for youth but a solace in old age.

To sum up the various points brought up in the discussion, the chief value of Latin for the large number who study only for one or two years is a strengthened sense of language-structure. This is of unquestioned value in English. An alert teacher can find means to add variety and interest to the sterner aspect of the work and attain the end of creating a stronger language sense. The teaching calculated to do this will prove valuable as well during the whole course of pure Latin. The four-year pupil therefore does not lose, the two-year pupil gains immensely by a recognition of conditions and an adaptation of work to fit them. Fairness and economy seem to argue for some such adaptation.

C. ENGLISH

IDEALS VERSUS REALITIES IN HIGH-SCHOOL ENGLISH

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Out of the discussion and experiment that have accompanied the growth of interest in English as a school subject, there has now come substantial agreement concerning ideals and aims in literature and composition. None will deny that, in general, the aims of English teaching are to arouse love of literature and to cultivate habits of thoughtful reading. In particular they are to bring pupils into such vital contact with great works of literature that they shall gain not only intellectual understanding of these books—knowledge, but also spiritual comprehension—power. Literature should be presented so that it shall instill knowledge of human life and of human nature, nourish imagination and the sense of beauty, foster noble ideals of character, confer power to think and power to feel—in short, give general culture to both mind and soul. The third aim universally accepted is the development of the power to speak and write clear, correct, idiomatic English. Our ideals in English study, then, will be attained only when every boy and girl under our charge shall acquire a love of literature, shall appropriate the treasures of thought and feeling hidden in the books studied, and shall gain proficiency in the use of his mother tongue.

Surely these ideals are not too high: yet how far are they from the realities! High-school graduates are not set apart from the rest of the community by a peculiar love of literature or by unusual thoroughness in reading. To be sure, assimilation of the spiritual content of books cannot be measured; but even grasp of the more easily gained intellectual content is far from universal. Of the deficiencies in speech and writing shown by the high-school graduate we hear continually. There is a wide gap between our ideals and the realities about us.

Nevertheless, this discrepancy between our aims and our attainments is no cause for discouragement. Though our ideals may not be realized for every pupil, yet a larger number every year do learn to love literature and to get from it what it has to teach them; and a college professor has recently attributed to the study of English composition in the schools the unprecedented quantity of good English now being written. It must be remembered that it is the faults of our teaching that attract attention; the merits pass unnoticed. Moreover, the last decade has unquestionably seen such improvement both in the quality and the quantity of our results as to give us great encouragement.

Yet the progress that has been made should be only an additional incentive to vigorous pursuit of our ideals. Our course will be more intelligently directed if we pause to consider the causes of the difference between our ambitions and our achievements. These may be grouped under two heads: those that are inherent in the conditions and those that are capable of removal.

Among those that are irremovable may be named three: the poor quality of a considerable part of our raw material; the antagonistic influences of the outside world; and the fact that by their nature, ideals cannot be completely realized.

It must be granted that not every boy and girl is capable of acquiring love and appreciation for literature. By nature some are so destitute of the germs of imagination, so material in mind, so dull of soul, that every effort to make them sensible of the beauties of literature falls upon barren ground. A silk purse cannot be made out of a sow's ear. Though the proportion of those spiritually deficient is still small, it is becoming larger each year.

Secondly, the ideals and practices of the outside world are opposed to the ideals of English teaching. In the majority of homes literature is not valued, and inferior, not to say worthless, reading abounds, while the language of the street and of the daily paper constantly corrupts the pupil's expression. Furthermore, outside of academic circles, spiritual culture such as literature affords is neither understood nor valued, for it does not lead to popular success. The seed sown in school is soon choked by the unsympathetic influences of a materialistic age.

In the third place, our ideals would not be ideals if we could reach them completely. By definition, ideals must be in advance of realities. Consequently, failure to reach the ideal is inevitable.

However, setting aside these ineradicable difficulties, we find opposed to the realization of our aims several ills that are not beyond remedy. Briefly enumerated, the more important of the evils that can be removed are: too large classes, too much work assigned to teachers, and a variety of errors in instruction.

Though in any subject large classes are a distinct disadvantage, this is especially true of English. Success in English teaching depends upon personal contact between teacher and pupil and upon attention to individual needs which differ widely in the same class. With classes of more than twenty-five the teacher's personality is spread out too thin and adaptation of the instruction to individuals is reduced to the lowest terms.

Akin to the harm caused by large classes is that which results from the assignment of too much work to the teacher. That the proper preparation of a lesson in English demands more time than that of lessons in other subjects; that the teaching of a class in English with the enthusiasm necessary to the highest success uses up more nervous energy than the less exhausting methods employed in other subjects; that the correction of composition imposes upon the teacher of English a task of the most exacting nature for which there is no equivalent in other subjects: these are facts generally conceded by teachers of all branches. And yet the Powers that make out schedules and assign classes usually give the teachers of English the same number of classes and the same number of pupils as the teachers of other subjects. Usually, I say, for I know of one school—may the number of its kind increase!—where English teachers are given one period a day fewer than other teachers.

As a result of the prevalent failure of the authorities to recognize the difficulty of the English-teacher's work, he is forced to choose between two evils. Either, sacrificing the hours he needs for recreation and self-culture to the demands of work whose quantity crushes vitality and deadens the spirit, he must become a lifeless drudge; or, retaining his vigor and his enthusiasm at all hazards, he must leave undone much that needs to be done for his classes. Of the two evils the latter is the less. Better, at any cost, a live teacher full of enthusiasm, than a jaded and spiritless hack, destitute of all power for giving inspiration. As a remedy for this overloading of teachers may we suggest the adoption by high schools of the plan, followed in the colleges, by which teachers of English have assistants to relieve them of the drudgery of correcting mechanical details, in order that they may give their time to more important work. When this is done and when time for individual conferences over written work is allowed, we may, indeed, feel that we are approaching ideal conditions.

More than any other cause, the two evils—large classes and overworked teachers—are responsible for the defects of our English teaching. To these are directly traceable many of the errors in instruction which form a third reason for failure to reach the ideal.

The common errors in instruction are the effect of too ambitious courses, of the influence of examinations, of unfit teachers, and of the failure to keep in view the great aims of English teaching. The laudable desire to give our classes as much as possible from the vast riches of our subject causes us to crowd too much into four years. All knowledge is not our province. A few books well considered, without haste and with time allowed for the fixing of impressions, are better than many books and a mass of literary history only half assimilated. This is not a plea for such intensive study as by its misguided thoroughness leads to disgust—heaven forbid!—but a warning against hurried work that tends to confusion. Of course, there should be extensive reading, the wider the better; but what is needed in our courses of study is simplicity. When the attempt is made to cover too much ground, the true ends of literary study are obscured. Culture is a plant of slow growth.

In composition, the same attempt to do too much appears. The function of the secondary school is to teach the elements of good writing; but in recent years much attention has been given to the details of structure pertaining to difficult literary forms, in a vain effort to produce literary artists. When our pupils can spell, punctuate, paragraph, and compose sentences properly, then and not till then will it be time for us to try to make them into authors. Here, again, I do not wish to be misunderstood. Instruction in the elements of literary structure is valuable both for developing a sense of form and for arousing interest. the chief essential to success in composition; but such analysis of literary forms is carried to great extremes. *Ne quid nimis* should be one of our watchwords.

The influence of examinations is a pregnant source of evil. Literary culture—a spiritual process—cannot be measured. It is entirely distinct from literary knowledge—the acquirement of facts—which can be measured. Since examinations are necessary and since they must be based upon knowledge, the temptation is almost irresistible to exalt facts in teaching to the neglect of spiritual values. To this evil may be ascribed much of the dulness and prosiness of English teaching. "The letter killeth, but the spirit giveth life." The only remedy apparent is a resolute determination on the part of the teacher to keep examinations and the preparation for them in the background.

Though there are fewer unfit teachers of English today than at any time past, the old notion that anyone can teach English is not yet extinct. In fact, the teacher of literature should be chosen more carefully than any other, for in no other subject does so much depend upon personality. A mere drill-master, however effective as a teacher of Latin or mathematics, cannot succeed with English. Sensitiveness to spiritual values, wide and deep culture, spontaneity, adaptability, and a sympathetic nature are essentials for the teacher of literature. When these qualifications are lacking, there can be no hope for reaching the ideal.

The teacher who has these qualities needs to keep upon his guard lest they be destroyed by the deadening effect of routine. Contact with life, life in the real world and life in the world of books, must constantly replenish his powers of inspiration. To teach writing well, he must himself write. From working under pressure that prevents growth and refreshment, many a teacher, at first fit, loses life and becomes unfit.

All the errors in instruction may be reduced in the last analysis to one: the failure to keep in view the great aims of English teaching. If love of literature and power of expression were the ends to which everything were subordinated, our courses would be simpler, examinations would take a secondary place, and teachers would be both chosen for the power to secure these ends and aided to increase that power.

In spite of adverse conditions, great strides have been made in the teaching of English. Imperfect as our results have been, they have compelled the recognition of the fundamental place of English in the curriculum. That the opportunities afforded by this recognition may not be slighted, it now remains to improve the conditions under which English shall be taught. This is the next step. When the size of classes shall be limited to twenty-five at most, when the duties of the English teacher shall be reduced to correspond with those of other teachers, when throughout the length and breadth of the course attention shall be always focused upon the true goals of all English study—noble impression and worthy expression; then and only then may we lift realities close to ideals.

IDEALS VERSUS REALITIES IN HIGH-SCHOOL ENGLISH

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The teacher of English frequently indulges himself in the pleasurable dream that there may be in a class before him a possible Charles Lamb or Jane Austen, a Carlyle or George Eliot, a Tennyson or Mrs. Browning; while in fact there are several Josh Billingses, many Sis Hopkinses, and scores of youthful Mrs. Malaprops and Tony Lumpkins. How to convert a Sis Hopkins into a correctly speaking future president of a mothers' union, a Tony Lumpkin into a clear-thinking American citizen, a Mrs. Malaprop into an enthusiastic student of a Thomas R. Lounsbury is the real problem of the teacher of English.

The methods for solving this problem are the reading of classics and the writing of essays; or, the comprehension of another's thought, and the expression of one's own thought. Yet it frequently happens that average pupils do neither one nor the other with readiness and skill. Some reasons for this failure have been named in the preceding paper. However, the character of the reading done by many pupils, and the difficulty of being definite in English, make up greatly for this discrepancy between our aim and their achievement.

If all our pupils loved their language with half the zeal they love their country; if all loved good literature; if all loved to write painstakingly, how happily pupils and teacher might travel on in the path of attainment! But this is ideal: we have to do with the actual.

In the first place, the slovenly pronunciation and careless orthography of many indicate the slight consideration given to the language. In the next place, the majority do not love to read good literature, especially college requirements in English. The girl whose favorite novelist is "The Duchess" does not take kindly to the realism of George Eliot; the boy whose favorite poem is "Casey at the Bat" does not perceive at once the lofty seriousness of "Lycidas" or "Il Penseroso." The true nature of literature is unknown; that its basis is experience seems preposterous; that the everyday could have any association with the imagination is ridiculous; why the classics are called the "humanities" is not realized. But if we can make the pupil feel that what Aristotle said of tragedy is true of all great literature—it purifies; if we can make him feel that in the portrayal of sorrow our own self-pity and self-love are merged into a great broad sympathy with all humanity, we shall have done something to make repellant the temporary, the individual, in favor of the permanent and universal.

The many-sidedness of literature presents difficulties to the pupil and the teacher as well. It appeals in so many ways that to be definite is almost impossible. Yet if we keep in mind the leading aim of literary study-love of literature—we do well to avoid the mechanical side and look to its larger aspects. What we do desire is that the pupil take to heart the universal, unchanging thought or condition. With all the skill we possess, we lead the pupil to grasp the thought. But most teachers, I dare say, have been impressed with "the infinite capacity of the human mind to withstand the introduction of knowledge." Nevertheless, clear, definite, intellectual conceptions must be insisted upon, or else the English hour will be looked upon as one requiring little mental effort. On the other hand, the highest appeal, the spiritual, is beyond definite expression. But if our teaching be sincere and we ourselves are thoroughly impressed with the classic, our faith should be sufficient to believe that the heart of the average youth has been touched and his spirit cleansed and fortified.

It is with poetry that we have the greatest difficulty. The lack of imagination on the part of many and the fallacy as to its uselessness are responsible for this. On one occasion a pupil of mine was greatly surprised to find that Shelley's poem, "The Cloud," was scientifically true. He said he did not know that poets had any sense. When I ask for the central thought or main idea of a somewhat familiar lyric, the almost invariable response is, "It hasn't any." But if we can get the pupil to believe that under certain conditions one who does not speak poetry has, as Gilbert K. Chesterton declares, an impediment in his speech, we shall have its essence faintly revealed to him. For the rest, the fine spiritual appeal which every great poem does make must be left to work its own way to the consciousness of the pupil. And if it fails, it fails.

But this is a practical age and demands a tangible result for time expended. This, together with examinations in literature, causes us to rush where angels fear to tread and do much technical teaching altogether hostile to the spirit of the great masterpieces. Also, in our attempt to combine thoroness with vitality, it would seem that I, at least, make distressing blunders. After teaching the *Idylls of the King* to an unusually responsive class, I asked some question concerning ideals of character portrayed, when a boy, to whom the rest nodded a smiling approval, said, "Too many family quarrels to suit me." We can never be wholly sure of the impression a pupil is gaining. In reading a girl's character sketch of Lady Macbeth, I found at the beginning of her theme this sentence: "Lady Macbeth, tho a horribly wicked woman, was a good wife."

Why teach literature? To give the pupil ideals; to furnish him standards by which to judge other books; to make him finer in thought and wider in sympathy. However, the test of what we do is found in the kinds of books the pupil reads—during vacation. Even though he does procure for the most part trash, if our teaching cause him "compunctious visitings" at his preferring to gossip with stable boys instead of talking with kings and queens we shall not have done ill.

In teaching composition, we must give pupils a desire to express themselves. The greater part of our work is aiding them in the expression of their own thought. They have many ideas; the study of literature has furnished ideals. Here, however, there are two sides upon which to labor—the mechanical side and the joy-of-expression side. Shall I constantly admonish them concerning spelling, grammar, punctuation, capitalization, and logical structure? Shall I hold up to them as models the simplicity of Franklin, the reserve of Thackeray? Or shall I encourage them to be specific, to be exuberant, telling them that "speech is morning to the mind," and that a full page of written English is the one thing worth while?

The teacher who has the power to stimulate his pupils to that point where each shall take pleasure and have happiness in giving expression to his own thought has an ideal condition. It is natural to youth to speak out. The newness of life, the joy of living are stimuli to speech. But the point at which it is best to dampen the ardor of unrestrained "flow of soul" in favor of unity, emphasis, and coherance requires infinite tact and consummate skill. The youth, unwilling to entertain these minor considerations, resolves to write no more. Practice control by law? He will none of it! Notwithstanding our firm conviction that form should be subordinated to soul, the most exuberant passages fail to please when Josh Billings spelling and Sis Hopkins grammar meet the eye. This is the call of the schoolmaster.

But what of the pupil without a theme? the boy who hates English but loves forging or physics? Formerly I had an appealing speech ready for this type; now I do differently. I am not at all angry at him for his contemptuous opinion of English, but I make him angry and cause him to write under emotional stress. This begets fluency—and a written exercise. I hold this method to be quite legitimate provided it be done "in conscience and tender heart."

It is true that the correction of these papers leaves little time for reading or recreation. But since it is the part of wisdom to meet conditions as they are, it becomes necessary for the teacher to evolve a plan by which the work may be done economically. Then, on the principle that the whole is greater than any of its parts, the theme should be read solely for its subjectmatter; next, for the one point emphasized in the assignment. It may be, for instance, unity. Whatever it is, the comment on the back of the paper should have reference to this one thing. I explain to pupils that it is impossible to mark all errors. Moreover one thing at a time makes for more definite progress. In this manner, all exercises may be handled in a way conducive to the pupil's progress and the teacher's continued usefulness.

Finally, if we believe that in education, the most essential virtue is ideals of character, nowhere can this be more forcibly instilled than in the study of literature; if we believe with many that in writing the all-important requisite is a model for imitation, then the unconscious followers of Josh Billings, Sis Hopkins, and Mrs. Malaprop will have to play consciously "the sedulous ape" to the great masters. But the pupil must not be permitted to stop here; he must add to what he borrows, and, eventually, who shall say that ideals may not become realities?

SOME PRACTICAL PROBLEMS IN THE TEACHING OF ENGLISH

ALFRED M. HITCHCOCK, TEACHER OF ENGLISH, HIGH SCHOOL, HARTFORD, CONN.

Of the 2,336 who in 1905 took the College-entrance Board examinations in English, less than 43 per cent. attained a grade of 60. That same year reports from seventeen prominent colleges revealed that approximately 20 per cent. of the freshmen were "careless or ill-trained in the use of grammatical and clear English." From the business world comes testimony not a whit more pleasing. No matter where we turn, evidence is abundant. Boys and girls cannot spell, cannot punctuate; they write crude, bungling English. Who is to blame?

How would it do to point to the material out of which we are expected to make masters of expression? It is not, much of it, the best conceivable. Truly these young people who crowd our schools—hundreds today where but a few years ago there were fifties— are a heterogeneous multitude, representing many grades of ability. How true it is that most of them, not the foreign-born alone, steep in lawless speech, bad English, from the time they leave the cradle. In common with the rest of us they breathe an atmosphere of haste, superficiality, low ideals. And so we might go on and on, till checked at last, it may be, by the thought that all this, whether we like it or dislike it, is beyond our control; we cannot change it. Nor do I believe that any of us care to point to it as an important explanation of failure. The blame should not rest upon the boys and girls, who remain, after all, essentially as God intended them to be; nor upon the times, for it is a first duty to adapt instruction to the needs of the times. We must accept things as they are.

Rather would I hold responsible, in some measure at least, the very colleges complaining so loudly. Entrance requirements as stated in the catalogue are reasonable, I think; but how shall we characterize the papers springing from them? One examiner calls for an essay of some length contrasting two periods of history. What is the difference between a door and a gate? asks a second, and How does poetry differ from prose? Explain "proper," in the expression "O proper stuff!" asks a third, and Write for twenty minutes on Society in Venice in Shylock's Day. These, indeed, are extremes The typical test in composition calls for straight-away narration—reproduction, that is, condensed reproduction, pages to be crowded into lines at a rate of speed—at Yale six hundred words an hour—which is clearly impossible when writing to scale. I do not know which is more vexatious, the wide range of possible questions, or the unreasonable rate of speed; but this is evident: the teacher preparing candidates for eight or ten different colleges must step lively.

Unquestionably too, I think, should the responsibility be borne in part by the grammar schools. Here, however, let us speak guardedly. We little understand how much greater than our own are the problems of the lower grades. Yet at times the thought will come that if the course of study were simpler, if this extra and that could be eliminated, time might be found for more effective drill in spelling, grammar, composition. Possibly there are wicked moments when we think that if the entire tribe of supplementary readers were to be exterminated, and the heavier classics weeded from the masterpiece course; if there were to be a partial return to the old-fashioned drill in oral expression, a few selections being read over and over, reasonable repetition supplanting the debilitating process of skimming, pupils would come to us with fresher minds, keener memories.

But let us hasten to admit that an important source of the disorder lies nearer home. In attempting to meet the demands of the colleges and the business world, the secondary school has broadened its curriculum again and again. It has been forced to adopt a complex elective system. Correlation and co-operation have been largely displaced by the departmental idea. Ambitious instructors follow single lines of work. There is not time for these trained specialists to accomplish all that the times demand; there is not boy enough, girl enough, to go round. Each instructor works prodigiously in his own narrow trench. Consequently expression, by nature an integral part of every study, is commonly neglected. Language tinkering has gone out of fashion; broken English is supposed to belong exclusively to the repair shop known as the department of English. With what effect upon the pupil? Good English is unnecessary at home, of course; unnecessary in school, save for a few hours each week, when it must be put on to satisfy the finicky teacher of English, and during these few hours, time is devoted mainly to the study of literature, not to practice in composition.

But let us again narrow the circle. College and elementary school are in part to blame. The general plan of the modern high school, with its rapidly increasing numbers, its ever-broadening curriculum, its elective system, its corps of specialists, is, so far as training in expression is concerned, baneful. Yet if we would find the main root of the evil, I believe it must be sought within the English department itself.

Not long ago a certain committee received, from a large number of teachers of English, letters answering a few questions respectfully submitted. Embarrassing indeed is the confession, but let me blurt it forth: Comparatively few of these letters, the committee agreed, were models, and some were unmistakably bad perhaps inexcusably so, if it be remembered that they were penned by those who should be expert. Expert they are, no doubt, along certain lines, familiar it may be with English literature from Beowulf down. Yet it would seem that they lack the power to express themselves clearly and accurately. They are untrained.

But not all are thus deficient. "Miss A——," a principal remarked recently, "has a charming personality. Her letters and her conversation reveal culture. But I am afraid she does not quite know what she is striving to accomplish with her classes, or if she knows, she is unable to devise a definite working plan. She is earnest, industrious, but her efforts seem poorly directed." Perhaps you agree that this characterization applies equally well to some whose names do not begin with A. Ability to write is one thing; quite another thing is the skill required to teach others to write.

There is yet a third class, not untrained like the first, nor aimless like the second. Indeed they are all aim and method. They know precisely what they wish, can put it down in black and white, and it looks exceedingly well; but what they think to accomplish is oftentimes cruelly inappropriate, and frequently impossible. In extent and in character their courses of study are ideal rather than practical, useful, if at all, to the mature mind of a university graduate.

Are such characterizations too severe? Then let me hasten to say that there is a fourth class, much larger it may be than I suspect, who always talk and write with accuracy, precision, ease, who never wander aimlessly, never attempt the impossible, but have the ability and the courage to plan and to execute that which is simple and practical. Yet I presume it is true that there are twenty skilled teachers of mathematics where there are ten skilled teachers of English, ten who can interest pupils in literary masterpieces where there are five who are successful in teaching the young to talk and write, and five thus successful where there is one who handles composition and literature with equal ease. This is so, I presume, for two reasons. First, our teachers are the product of a system of education in which, especially during the past twenty years, expression has received scant attention. The bad pennies have come back to the mint. Poor mothers make poor children; poor children make poor mothers. The educational chain is endless. Second, even under favorable circumstances, literary ability, or better the kind of ability needed for the English class room must be, in the nature of things, rare.

We are failing, then, not because we lack industry—most teachers of English are tremendous workers, earnest, faithful to the last degree—but because, in the composite, we are not sufficiently well trained; because, through lack of intelligent directing, so much of our energy goes to waste. Too many of us lack a plan, a method of attack, a line of progression, a clearly defined, reasonable purpose. And this leads to the important question, what constitutes a practical, effective course in composition? I think we all agree that there should be such a course, just as definite as the course in literature, intimately connected with the study of literature yet not its slave, all but as definite, as carefully articulated, as the course in mathematics—definite, thorough, yet very simple, appropriate to the needs of plain John and plain Mary, recognizing that children are but children, who respond best when interested yet are quick to recognize a master, and even prefer one who sets a reasonably difficult task, then has the courage to say, "This is hard, but necessary; you can do it and do it well, and—you must." Definite, simple, reasonably interesting, yet recognizing the necessity of hard, persistent drill; a minimum of theory, a maximum of practice: such, we agree, should be the general characteristics.

But to be specific. We may think of our course as an ascending spiral, in that it is symmetrically progressive, carefully graduated from the simple to the more difficult; a spiral in that each year all four forms of expression find place. It is a spiral of written compositions: short ones a paragraph or two in length, done in class room—spontaneous expression; longer ones, each the work of an hour, done at home; once or twice a term an essay sufficiently long to call for some planning, inviting the pupil to produce a finished product, for him a masterpiece, something more than a skim of what lies on the mind's surface.

But the spiral should be a double one, calling not only for written composition but for oral. This is difficult to manage, we find, but it brings large returns. First comes story telling; then easy tasks in explanation, with now and then a simple illustrated talk, the pupil making himself clear through sketching on the blackboard; then class discussions on interesting topics of the hour. Carefully trained along such lines, the pupil in time acquires the ability to stand before his mates and talk for a few minutes without embarrassment—a rare accomplishment.

It is a triple spiral. Our pupils should write many compositions. They should talk many compositions. But drill of a third kind is needed: practice in planning compositions long and short which may never be written—co-operative work where, the subject having been previously assigned, the instructor, for the time being a mere clerk, jots down on the board suggestions from this pupil and that, stopping now to strike out a topic challenged as irrelevant, now to combine, to re-arrange, to re-word, till there grows before the eyes of all a structural plan. the product of the combined intelligence of the class.

Written composition, oral composition, the co-operative planning of compositions, and one thing more, for the completed spiral is at least quadruple. I have left it to the last because just now it becomes exceedingly important. I refer to persistent drill in technical accuracy. Our boys and girls do not know how to use the dictionary intelligently. They misspell and mispronounce common words. Their sentences are ungrammatical, or if grammatical, then clumsy. They do not know how to punctuate. All these matters require special attention. Scolding amounts to nothing. Dabs of red ink accomplish little. An occasional blackboard demonstration is more effectual, yet this is insufficient. You agree, I trust, that in our day and generation as never before, we need special exercises, scores of them, home-made for the most part, to be used over and over again, with seniors and juniors as well as with pupils of the first two years. If we would have good spelling, we must teach spelling; if we would have neat sentences, correctly punctuated, we must invent exercises affording practice in careful sentence structure. Skill in such matters will not come—to the present generation, at any rate—through much writing. Practice in writing—a reasonable amount; practice in talking—an unusual amount; practice in planning; but above all, and until we are clear of our present embarrassment, a seemingly unreasonable amount of drill in technical accuracy,—in spelling, pronunciation, grammar, sentence structure: these four kinds of work, I am sure, are the essentials to training in the science and art of expression.

And now to return to our starting point. Problems of practical interest in the teaching of English: what are they? First, how can we convince the colleges that there are ways of testing powers of expression which do not induce unprofitable methods of preparation for examination? Second, how can we, without offending, suggest to those in charge of elementary schools that perhaps if less were attempted more would be accomplished? Third, how best can we impress upon those who direct the work in secondary schools that to eradicate careless, shiftless expression, all hands must combine in determined, co-operative effort? Fourth, what is the surest way of recruiting our ranks with strong, sensible, skilled instructors, competent to lay out a practical course and adhere to it through thick and thin?

The first of these problems is already half solved. Few things of greater significance mark the past year as one of progress in educational matters than that our leading colleges, convinced that something is wrong, have been investigating, conferring with one another and with the secondary schools, looking towards reform. The second problem, too, is slowly solving. The tide is turning; the process of simplifying, yet stiffening, the curriculum has begun. The third problem—well, perhaps I have been too severe. There is, of course, a degree of correlation and co-operation in many schools—not all that could be desired, but possibly all that should be expected under the present trying conditions. And the fourth problem? Do I feel the last foot of firm ground giving way beneath me? Is the average teacher of composition far more competent than I have imagined? Is the supposition that a great deal of hit-or-miss, planless work is being carried on a correct one, or merely a reflection of what I have practiced in my own class room? If I am wrong on all four points, there is serious cause for alarm. The Golden Age will soon be here and we shall all be thrown out of employment; for in the Golden Age there will be no teachers of composition, since there will be no need of them.

PRACTICAL PROBLEMS IN ENGLISH

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The problems in the teaching of English are many, and there is not one of them that is not thoroughly practical. Moreover, they are all of immediate importance. Hence arises a difficulty in selecting problems to bring to a consideration of the National Education Association Round Table. Such a selection must be based upon individual experience and upon individual study of conditions in the schools.

In connection with the teaching of literature I would raise two questions. The first of these is, How far does the study of literature as taught fail of its possibilities in cultural effect? The acquaintance which the present high-school graduate has with English classics is very much broader than that had by the high-school graduate of twenty years ago; whether his intelligent appreciation of those many works is any deeper than that of the earlier graduate I very much doubt. This extensive rather than intensive study doubtless fosters in the youth an alert and receptive disposition. Such a result may be expected from the democratic character of our educational system. Yet in the attaining of this result we must not sacrifice the highest mission of the study of literature. That "higher spiritual sensitiveness" which is a mark of true culture should be at least dawning upon the young man or woman who has had the interpretation of life and nature as found in literature opened to him by the earnest, whole-souled teacher of literature.

The second question is this: What are we losing by not giving a definite place in the high-school course to a systematic study of that branch of English literature known as American literature? In American public schools we are training for life in the American democracy; we are teaching American conditions of the past and of the present, and are fostering American ideals for the future. The literature of a people is the record of that people's thoughts and feelings. Yet do we realize that our high-school graduate of today has a very much more intelligent and a very much wider grasp upon English literature—both its individual classics and the history of its development—than he has upon American literature? Surely in American reading, American themes should predominate. The elementary schools do read a number of selections from American authors, but this is not sufficient for an intimate acquaintance with American literature. What of American literature my experience has found in the schools has been scattered and not grouped together in one whole, so as to show the relation of one part to another; thus much effectiveness has been lost.

In general, the results attained in the teaching of literature in the high school are better than those attained in composition. For this fact three reasons may be given. First, literature came into the course later than composition, and there has been no pre-established hostile attitude toward literature to be removed. Composition as formerly taught won little favor from the pupils upon whom it was inflicted. Second, in the study of literature thought-activity is initiated by a strong stimulus of an entertaining sort, so that interest is more easily aroused; while in the study of composition thought-activity is initiated by a stimulus usually less strong, so that interest is aroused with greater difficulty, and yet interest is all essential, for writing tends toward the production of original creative work. Third, the successful teaching of composition is a much more difficult task than the successful teaching of literature.

It is composition, then, that furnishes the gravest problems in the teaching of secondary English today. Results in this work are more apparent in their efficiency or non-efficiency than are the results in literature, and these results, as actually tested, are found wanting. To spare ourselves the mortification of knowing that our graduates murder the English language, it is incumbent upon us never to cease a constant, painstaking, and patient attack upon errors while we have the pupils with us. Eternal vigilance in both oral and written expression is the price that must be paid for coveted results.

Oral expression has come to its own in the primary grades, but has still much to conquer in the grammar and high-school grades. Scrappy answers to questions instead of topical recitations, in a general effort to save time because of the crowded curriculum, has subordinated the graces of story-telling and of speech. It is only too evident that our pupils have a wan, thin vocabulary, and that they speak in undeveloped thought-units with lack of power to relate two or three thoughts. Yet our ideal for them is that they should have steady, unhalting, full expression, with the ability to make statements in adequate terms, and that they should have vivid impressions and distinct conceptions so that there may be knowledge "on tap" for expression. Careful training in oral expression, especially through topical recitation, should, then, be given in the upper grades and through the high school.

We fail to secure help that we might obtain by co-operation between the teachers of the seventh and eighth grades, and those of the ninth and tenth grades. Consultations between these two groups of teachers would tend to lead the grammar-grade teachers to appreciate more fully the significance of their work, and it would show to the high-school teachers exactly what they might expect by way of an assured foundation upon which to build, so that there would be no time or worry lost over the adjustment of work at the beginning of the high-school course. It might, too, lead superintendents and makers of courses of study to see the harm that they are doing by so crowding the curriculum in the grammar grades that, with their own confession, they are pushing the art of composition to the wall, hoping that the art may be acquired "incidentally."

Co-operation is needed, too, not only between the upper grammar-grade teachers and the teachers of the first high-school work in English, but it is needed among the teachers of all the departments in the high school. Inaccuracies in spelling and punctuation, and faulty expression should not and need not be tolerated for a moment in any written work. This attack upon faulty English need make the teachers in other departments than that of English no additional work; the chief weight of the burden may be borne by the English department, if the other departments will but be keenly interested in the matter, and refer pupils submitting papers faulty in English to the English department. A method may be adopted of referring such papers that will place but a small task upon the teachers of other departments; it will place the burden where it belongs—upon the teachers of English. But it becomes necessary that the teachers of English be given time to do this individual work.

It is only by individual work that the desired end can be attained. General class instruction will, in this work, often fail to hit where it is most needed. Without the personal touch the work will be in vain.

The more I handle written work from high-school pupils and from girls and boys just out of high school the more the belief grows upon me that we are neglecting one means of obtaining clearcut, forceful expression; that means is a study of English grammar in the upper high-school grades. Faulty sentence-structure often arises because the pupil's sense of the form of the sentence has not been fully developed. To clear up a rambling, wordy, or vaguely stated sentence we must call to our aid two things: clear, logical thinking, and adequate expression. But the expression will not be adequate unless clearness of syntactical relations exists between its parts. The relations that exist between thought-processes and thought-expression must be studied. English grammar is analytical, and not to any extent concordant and inflectional, and therefore the study that the elementary schools put upon it must of necessity be altogether inadequate.

If a special study of grammar is taken up during the first two years of the high-school course, the work fails of its purpose. The pupils are of about the same degree of immaturity as those of the seventh and eighth grades, and so cannot take up the study from a point of view materially different from that from which it has already been presented. Hence interest is slight and results inconsequential. The earlier high-school work should be sufficiently different from the English work just preceding the high-school course for the pupil to feel that he is progressing. But while the study of English grammar is not fitted to ninth- and tenth-grade work, it will prove very fruitful in the eleventh or the twelfth grade, where the pupils are more mature, where they may be made to feel the need of the study, and where the majority of them have a knowledge of Latin sufficient to form the basis for a comparison between an analytical language like English and an inflectional language like Latin.

The problems surely are perplexing, but the perplexity carries with it interest, and there will be joy in the solution. Moreover, the work of teaching English is of great importance. The socializing of the individual is incomplete without the results gained from this study; the acquaintance with literature that brings to the individual through imagined experiences knowledge and ideas that he has had no means of acquiring through actual experience; and the ready use of spoken and written language, an imperative social need. Hence encouragement comes to us in the greatness, as well as in the interest, of our task.

and satisfaction shall come as, facing problems squarely and solving them sanely, we meet with increasing effectiveness of results.

D. SCIENCE

WHAT SHOULD THE SCIENCE LABORATORY NOTEBOOK CONTAIN?

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An adequate answer to this question cannot be given until we have a well-defined idea of the aims and purposes of the study of physics in the high school.

Like other portions of high-school work, the physics laboratory notebook is only one of the means employed in the development of the mind of the growing boy or girl, who takes up this subject as an important portion of his school curriculum.

As we regard physics in the St. Louis high schools, its purpose is to stimulate the interest of the student in the natural physical phenomena about him and to give him a more intelligent understanding of his physical environment; to promote careful and systematic observation, and to train the student in drawing logical conclusions from observed facts gathered from experiment; to teach correct interpretation of both written and oral instructions; to enable the student to interpret correctly the results of experimental work and to apply mathematical formulae to physical results; to secure clear and concise expression in good English; to give facility in the handling of apparatus; to foster and encourage initiative on the part of pupils in the solution of problems and in the mastering of new conditions.

To make possible the highest degree of success in these important matters, we believe in leaving the student free as far as possible from the necessity of doing much writing during the actual progress of the experiment in the laboratory.

Hence in planning out the details of an experiment, we adjust matters so that the student need only make "rough notes" in the laboratory, which are submitted to the instructor at the time for inspection, correction if need be, and final approval.

For approval, a self-inking rubber stamp is employed, so that little time is needed, if the results are satisfactory. Then the student is supplied with a sheet of suitable paper, and proceeds to "write up" his experiment with the information given him by the printed directions, by his rough notes, and his own recollection of what he had done.

When he again comes to the instructor, he presents with the work, as now carefully written up, the original rough notes, which bear the approval stamp of the instructor.

When this requirement is complied with, there is little opportunity for "copying," which would otherwise be a constant temptation to the weaker students.

Our laboratories are well supplied with needful apparatus, so that even a class of 32 students can be handled, and good work be secured, if matters are given that close attention which is the only means of insuring faithful and successful work from each student.

The laboratory notebook serves several ends, and each of these must be considered in deciding what the notebook should contain and how it should be prepared.

The writer thinks it far better that the notebook should be prepared outside of the laboratory, because greater care may then be given both to its contents and to its form.

The practice so often recommended of writing up the whole of the notebook during the period occupied by the experiment seems to the author less successful, because it leads to hasty and careless work; it makes proper examination of the work by the instructor at the time impracticable, except with very small classes; it inculcates the idea that "home study" is not needed, whereas quite the contrary is true.

By using loose sheets, as may be seen in the sample notebooks accompanying this paper, the instructor is enabled to take as much time as may be needed to give adequate attention to the special experiment in hand; meanwhile, the progress of the student is not interfered with, as he may have other sheets given him on which to continue the work of late experiments.

The laboratory notebook serves to the student as a record of work done; to the instructor as evidence of work rightly understood; to the college examiner as a proof both of the student's proficiency and of the character of the work which the particular school aims to accomplish.

It seems wise that the notebook should contain such information as will serve all of these purposes, so that there is urgent need for the following points: (1) The title of the experiment and a careful statement of its purpose; (2) A detailed list of the apparatus employed in the actual work of the student; (3) A carefully made sketch of the "set up" employed, this being of value, not for its artistic merits, but as an aid to a better understanding of the working details; (4) A brief but clear description of the work as performed by the student himself; (5) Tabulations, containing the measurements made, with explanations of any computations based upon them; (6) Carefully written-out answers to the questions given in the "discussion." As these test the student's mastery of the particular experiment, success in interpreting them is perhaps the best guide to the student's comprehension of what he has attempted.

The need of due attention to the first and second of these points will be readily apparent to any one who has tried to examine a notebook, when the work was not thoroly familiar in all of its details.

Probably nothing contributes more to mastery of the experiment than the student's ability to make a good sketch of the apparatus which has been employed, properly set up, so as to suggest to himself and others how the various portions were connected and used. Too often time is unduly wasted in making elaborate sketches, when simple outlines would have been easier made and better understood.

To the writer of this paper the place occupied by Physics in our high schools cannot be justified, unless it is used as one of our best means of securing excellent practice in the writing of good, idiomatic English; hence the requirement for a brief but clear description of the work is important for the proper training of the student. It is also important for the examiner of the work, as it enables him to understand what was done. True it is, that the careless student is prone to "copy" the directions which he received, but this must be sternly frowned down upon by his instructor. We tell our students that unless their work is made carefully descriptive of what was actually done, it will come back to be rewritten.

What has been said of the tabulations needs little explanation, as all concur in this. Much of the success of the student depends upon the care taken by the instructor to make him realize that nothing is asked of him that he cannot readily do. Confidence of success is the surest encouragement to real success.

To us in St. Louis the "discussion" seems easily the most important portion of the work. Questions are carefully elaborated to lead the student on, step by step, till one may feel sure from his answers that the whole of the experiment has been mastered.

Much can be done to encourage the student whose work has not been fully completed, by returning his paper to be completed and then graded. I have found that those who felt at first discouraged, brightened up at once, when they learned that they could finish the work and get credit.

BOTANY NOTEBOOK—WHAT IT SHOULD CONTAIN AND HOW IT SHOULD BE MADE

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It has been a long time since the English philosopher happened to observe, "If a man write little he had need have a great memory;" and further, "Reading maketh a full man, conversation a ready man, and writing an exact man." Bacon is not to be censured for this opinion. He had never attended a modern American college. We have the advantage of him in that way. He regarded that writing means the crystallization and accurate statement of an observed fact, or the clear expression of one's own thought or fancy. But we have observed the making of up-to-date notebooks. If not of their number, we have at least seen pupils listen to lectures, write up the line of thought hurriedly, copy bodily if at all possible, finish the odds and ends just in time to submit the notes to professors who scarcely looked at them. The writers, when handing them in, could by no means have given the contents of their own manuscripts. Contemplation, reflection, original thinking—these have no part in the rushing together of the material for many a notebook.

Our science work, with all its opportunity for first-hand observation, has not escaped the contagion. Drawings may be made from the microscope by people who have no conception of their significance. It is remarkable how much a pupil can sometimes show in a book without corresponding knowledge in the brain. The idea that writing makes an exact man would have to be modified. Whole pages, whole books may be written without making a man either accurate or inaccurate, except as it helps form the general habit of slighting, without, in fact, affecting the mental life at all. When it's over—a sigh of relief; the book is either thrown away or carefully put away, according to the disposition toward saving, and never used again.

Now this seems to me the one biggest mistake possible in this line of work. The prime object in the accumulation of notes is that the pupil may have a fund of information which is his own. The first absolute requirement ought to be that nothing be entered which is not understood. An unusually successful botany professor in one of the central states counted for nothing the whole notebook of one of his students because, in questioning, he found one page which the writer could not explain. The same teacher would readily excuse the omission of a part of the work when the rest was fully comprehended. That is a natural consequence. A whole class cannot be expected each to understand the same amount. Strict uniformity in notebook work is a sure destroyer of originality. We have to lay aside our pride in having all our pupils present handsome manuscripts, perfectly complete, if we wish them genuine. We must leave display work out of the question.

I believe that to make this attitude of honesty toward science prevail, our grading of notes should be not so much on the amount of material presented as on the real effort and original investigation shown. It was an old geological professor trained under Agassiz, who said of a pupil who had missed much of the term through illness: "No, I shall not discount her. Half of that student's work is worth more than all of the average one. She has the spirit of science."

We may not go quite so far, but it is certainly true that we cannot expect our pupils to put the spirit above the letter, if we grade by the letter. This may seem a digression, but since the basis for grading is held in mind by the average pupil while he does his work, it has a rightful place under this subject.

A thinking teacher will largely devise his own methods, but for discussion we suggest the following. Let one part of the book be a careful, connected presentation of the laboratory work as the pupil understands it. It will consist of a great number of drawings accompanied with simple explanations, and of brief illustrated accounts of experiments in plant physiology. We are taking for granted that a book is used which is arranged for the easy removal or insertion of leaves. No subject should ever be considered completed, but should be given a leaf to itself that the making of additions may be facilitated. Some of the foundation work ought to be made so plain that every learner would understand it fully. Then after that place a premium on individual illustrations of the same, e.g., if the green algae are being studied everyone ought to be able to know the type. It will then be easy for the pupils to add other specimens of spirogyra, cladophora, edogonium, and the like, as many as they can find. This can be done any time. The more we keep adding to the previous work the more cumulative value the course has, and the more real understanding it imparts.

To make this part of the work practicable let the habit be formed of individual miscellaneous collecting of everything in the plant line, understood or not. There will come a time in the study when all can be used. One illustration from a boy's own collection is worth a whole set of slides manufactured for him.

This laboratory part of the notes is constantly growing, capable of indefinite development, and yet is absolutely connected, scientific, and under the close supervision of the instructor.

Suppose for the other part, carried along at the same time, perhaps in the same book as the first, we consider a very old-fashioned thing, a journal, a simple diary of the natural objects which the writer sees. It may seem unscientific, but it trains observation which is the first essential of a scientist. It may be elementary, but it has to do with that part of the child nature which we need to retain. It is of incalculable benefit in giving a sense of exactly what happens in each season. Let it be a place to use every observation made on a Saturday's outing.

Let no one worry over the mixture if zoölogy and physical geography creep in hodgepodge with botany. They are apt to do that out of doors. Flowers do not object to the birds singing above them; I think an old tree likes to harbor a squirrel; and as for the boy who can gather spirogyra and not see a peculiar stone close by, he will never make a great naturalist. Our neatly classified school learning is all too apt to be placed on a shelf, while our thoughts run riot in the medley which surrounds us.

An old farmer smiles at his boy who has studied microscopic forms and cannot tell one tree from another. The boy smiles back secure in the belief that his is the superior knowledge. Let the observation department of our book broaden this view of the younger. Let it be counted no hindrance that he sees what he can not classify or explain. To know the realm of interest beyond us is a liberal education in itself.

It is wonderful how this habit of note-making quickens observation. We may laugh at Walt Whitman as they tell us that when he sees a skunk he grabs pencil and paper and pursues, but we know he has the spirit of a naturalist. Do you not think Hawthorne saw haunted houses with a truer poetic conception than if he had not frequently recorded descriptions of them in his *Journal?* There is Frenssen, the German Dickens, who makes his natural observations on human beings. You know how he will stop in the middle of a conversation, call for his notebook, and write down word for word some characteristic expression just made by the other.

This is the kind of writing which does make an exact man. This, applied to botany, makes that science touch life. This makes a notebook to which pupils will refer, and which they are apt to continue. We are all somewhat reminiscent. Whatever has touched our lives is dear to us. That is not egotism. It is the home instinct broadening to include nature.

Mine the sand-rimmed pickerel pond,
Mine the walnut slopes beyond.

If this feeling can be added to the life of a boy or girl it is close akin to a work of greatness.

We will say then, that with books adapted to the removal or insertion of leaves, we have a large section devoted to connected laboratory work, supplemented as much as possible by original additions. We are supposing this to be just as closely connected and as thorough as the teacher can present and the pupil grasp.

In the second part, which may of course be entered in a separate book if preferred, is a simple journal. There is nothing, from notes on a Saturday's hunt to a pertinent newspaper clipping, which we would debar. If a girl cares to enter a poem she likes, so much the better.

We believe each of these lines of work will help the other. As scientists we are to train seers, people who see accurately through a microscope, who see broadly and sympathetically with their unaided eyes.

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Vice-President—WILLIAM O. THOMPSON, president of State University of Ohio, Columbus, Ohio.
Secretary—LILLIAN GAY BERRY, Department of Latin, Indiana State University, Bloomington, Ind.

FIRST SESSION.—WEDNESDAY MORNING, JULY 1, 1908

The Department of Higher Education met in the Assembly Hall of Adelbert College at 9:30 A.M. President Oscar J. Craig, of the University of Montana, presided.

The first address was by President Craig on "Liberal Education in the Twentieth Century."

Dean Charles Fordyce, of Teachers College, University of Nebraska, presented a paper on "College Ethics." This paper was discussed by Chancellor Strong, of the University of Kansas; P. G. Knowlton, of Fargo College, N. D.; J. W. Beeson, of Mississippi, and Professor Connor of Iowa College.

President Chas. F. Thwing, of Western Reserve University, Cleveland, moved the adoption of the following resolution which was carried:

Resolved, That a committee be appointed to consider the question of calling a meeting of colleges and universities to consider ways and means of promoting their welfare in order to increase their influence, national and international. This committee shall report to this body at its next annual meeting.

The President appointed the following nominating committee:

Charles Fordyce, dean of Teachers College, University of Nebraska.
P. G. Knowlton of Fargo College, North Dakota.
Blanche Zehring, Wells College, Aurora, N. Y.

SECOND SESSION.—THURSDAY AFTERNOON, JULY 1, 1908

A paper was presented by Robert J. Aley, professor of mathematics, Indiana University, on "The Care of Freshmen in Large Universities." The paper was discussed by C. P. Cary, state superintendent of schools, Wisconsin; P. G. Knowlton, of Fargo College, N. D., and Dean Charles Fordyce, University of Nebraska.

"The Relation of the Work of the Colleges to the Work of the Medical School," was presented by William H. Crawford, president of Allegheny College. The paper was discussed by Robert J. Aley, of Indiana University, and David S. Snedden, of Teachers College, Columbia University.

David S. Snedden, adjunct professor of educational administration, Teachers College, Columbia University, presented a paper on "Pedagogical Departments in Colleges and Universities."

The last paper, "Some Avenues of Usefulness for Small Colleges," was presented by Wallace N. Stearns, of Wesley College, affiliated with the University of North Dakota.

The President appointed the following committee to consider the question involved in President Thwing's resolution adopted the first session:

Frank Strong, chancellor of the University of Kansas.
Benjamin Ide Wheeler, president of the University of California.
Charles W. Eliot, president of Harvard University.

The Committee on Nominations made the following report:

For *President*, Frank Strong, chancellor of the University of Kansas.

For *Vice-President*, William F. Book, professor of philosophy and education, University of Montana, Missoula, Mont.

For *Secretary*, Anna Starr, Department of Botany, Oberlin College.

The report was adopted and the nominees declared elected. The Department then adjourned.

LILLIAN GAY BERRY, *Secretary*

PAPERS AND DISCUSSIONS

LIBERAL EDUCATION IN THE TWENTIETH CENTURY

OSCAR J. CRAIG, PRESIDENT OF THE UNIVERSITY OF MONTANA, MISSOULA, MONT.

The thought of man is directed either to the future or to the past. The present receives but scant consideration. In youth and early manhood our attention is engrossed with the future. Our waking hours are filled with plans for our future success and the dreams that come to us in sleep are vivid with pictures of our anticipations. In old age it is the memories of the past that furnish the pictures on which thought loves to dwell. The faces are the faces of the long ago. We again feel the touch of the vanished hand. Scenes long past are presented to our view. In the young the present is not worth consideration when compared with the glorious future. To the aged the present pales into insignificance when the mighty past is recalled. Nearness to great events usually brings lack of appreciation. When we are near a mountain, we do not realize its greatness. The vastness of the sea is shut out by the horizon. We are living in the most wonderful age the world has ever seen. We have witnessed some of the most marvelous developments in the history of the human race, and yet we incline to recall the past or to ponder on the future rather than to live in the immediate present and fully realize our surroundings, our advantages, our duties, and our responsibilities.

This is an age of activity and advancement. The one who succeeds will do so because of his ability to enter into competition with others and win success by his own energy and acuteness. There is not a profession but has many followers. There is not an occupation that does not seem crowded. To secure success it is not enough that a man is willing to plan, to work, and to economize. Something more than mere thrift and attention to business is required. One must be able to take advantage of every circumstance. A circumstance is so contrived that for one to take advantage of it, it must be understood. Usually things happen and afterward we know their meaning. We must be able to give our interpretation at once. If we do not, someone else grasps the situation, steps into our place and receives the benefits.

Not only is it requisite of success that we are able to interpret the meaning of facts as they occur, but we must know what is likely to occur. The man who succeeds must not only be equal to the emergency but he must be able to create an emergency where none exists. Men are not so much the product of the times as the times are what men make them.

In this day of newspapers, periodicals, and magazines, it is a piece of inexcusable indolence to be uninformed on current events. The current events of today become history tomorrow, so that he who grasps the present as it comes has also the immediate past at his command. There is but one way of foretelling the future and that is by understanding the relation of the past to the present. There is not an isolated fact in history. There is not an isolated current event. Every fact has a definite relation to some other fact as cause, effect, or corollary, and fortunate is he who understands this relation. Furthermore he who fails to grasp these relations is the one who fails to win. He stops to wonder. He is surprised at the success of others and bewails his own bad luck. He firmly believes that malignant spirits have conspired against him.

History, economics, and sociology are receiving more attention today than ever before. Why? Because men want light on present conditions that will help in the solution of important problems.

Today not the ancient history of the steam engine is demanded, but the ability to construct the most modern and approved forms and to suggest still further improvements; not the story of how Franklin discovered the identity of lightning and electricity but the ability to construct the dynamo that will generate the most power or run the geatest number of lights at the least expense; not how the subject of alchemy has developed into modern chemistry but how to conduct manufactures, prepare fertilizers, and compound pharmaceutical mixtures with the least possible waste. These things are only possible by knowing the present and so fully comprehending it as to turn all our knowledge to proper account in our daily lives.

The life and the preparation for the life of today differs from the life and the preparation for the life of yesterday because our environment has changed. Today we have the locomotive and the automobile in the place of the stage coach and the carryall of yesterday. The telegraph and the telephone have taken the place of the pony express and the carrier pigeon. The needle has been displaced by the sewing machine and the sickle by the harvester. The friction match has superseded the flint and steel and the electric light makes the tallow candle cast a shadow. The typewriter and the Morthaler have revolutionized correspondence and printing. This is an age of machinery. The mine is worked by machinery. Travel is by means of machinery. The farm is tilled by machinery. Goods are manufactured by machinery. Clothing, food, tableware, furniture, timepieces, vehicles—all are made by machinery.

Not only in industrial lines but in every realm of human life and effort, our world of today differs from that of yesterday. The discoveries of Pasteur enable us to know some of the causes of decay in plants and animals. The application of the results of these discoveries to surgical operations not only has enabled the surgeon to cure diseases that were known, but to find the cause of diseases not understood and to prescribe their treatment and their remedy. Today the wireless telegraphy of Marconi becomes a rival of the system of Morse and the airship of Santos Dumont, of the express train. Under the X-ray opaque substances become transparent, and with the spectroscope we study the composition of the sun. There is not a science that the nineteenth century has not rewritten and revised.

Astronomy, the oldest and the noblest of the sciences, has made wonderful progress. The telescope has been supplanted by the spectroscope and we not only study the shape and movements of the heavenly bodies, but we examine their composition and varied conditions. We have obtained new facts concerning planets, satellites, comets, and meteors, Mars and his moons, Saturn and his rings, and the whole range of astronomical knowledge.

In the science of chemistry, Daltons' theory of atoms is almost the only important principle discovered prior to the nineteenth century that is still used as a working theory. Organic and inorganic are no longer separate, for organic chemistry has become the chemistry of carbon compounds. The periodic law of Mendeljeff combined with the molecular theory has given chemistry a new basis.

In physics the law of the correlation of forces and the law of the conservation of energy have been discovered. Light has been shown to be motion and heat located as the source of power.

The progress in biological science is marvelous in the extreme. The cell theory with protoplasm as the physical basis of life; comparative anatomy; the germ theory of disease; antiseptic surgery, and the general working theory of evolution—all originated in the nineteenth century.

The progress in historical investigation has kept pace with the advancement in other fields of learning. The finding of the Rosetta Stone revealed the literary treasures of Egypt. The unearthing of the king's library at Minench threw much light on oriental history, that had been lost. The ancient manuscripts that have been found give new light and assistance to those who would know more of the history of the Bible and those who wrote it.

The application of the historical method to the development of law marked an era in jurisprudence. This movement began about the beginning of the nineteenth century when the national codes of Prussia, France, and Austria were in process of formation. Referring to this movement a celebrated member of the Institute of France has said, "A new school grew up which with the most brilliant success made law throw light on history and history throw light on law." And again the same gentleman is authority for the statement that "the life and activity prevailing in the study of law, and the brilliant successes that study has recently achieved, are due in a great part to the illustrious representatives of the historical school."

The application of the historical method to political economy is of still later date and may be called a product of the last quarter of the nineteenth century. When in 1876 a number of the distinguished men of Europe met in Paris to do honor to the memory of Adam Smith by celebrating the first centennial of the publication of *The Wealth of Nation*, it was found that several of these men were departing and had departed from the orthodox school of which Adam Smith had been the founder and Ricardo one of the leading exponents. If not discovered it was for the first time fully realized that a new school had been instituted on the basis of the inductive philosophy—a school that used historical facts as the source from which its inductions were made, rather than as illustrations to support its hypotheses—a school that recognized that logic and philosophy are important elements in political economy, but that facts are indispensable when dealing with the science of wealth. The new life that this method infused into the subject, has been recognized by all, whether they have adopted it or not. Yea, more, the whole realm of social, political, and economic science has been put on a firm foundation.

But when the final record of the achievements of the nineteenth century is made up, it will be found that the greatest achievements of all have been in discoveries in psychological science and the application of these discoveries to the problem of education.

Psychological science is dependent on correct theories in chemistry, physics, physiology, and other subjects. Logic and philosophy can dictate correct methods only when the physical facts are known and understood. As long as the world believed with Aristotle that the principal function of the brain was to secrete tears it was impossible to have any correct views of the relation between mind and body, although much of the philosophy of Aristotle is accepted today as ultimate truth. As long as the heart was regarded as the seat of emotions it was not possible to have a correct psychology of the sensibilities although the subject of logic was as complete at that time as it is today.

The discoveries of the nineteenth century concerning the functions of the brain and the nervous system and the discoveries in psycho-physics and physiological psychology that fix some of the relations between the mind and the nervous system, coupled with discoveries in natural and physical science already referred to, have enabled us to put the philosophy of education on a sure foundation.

Our educational philosophy unfolds the laws of thought, points out the principles of mind growth and makes plain the purpose of education. It determines the content of the subject to be taught and points out how it may be applied in training the mind that is to be developed.

Herbart has taught us that the moral element in education cannot be neglected. He has taught us that as individuals the measure of our excellence is the amount of helpfulness that we may contribute to the advancement of the interests of others. Our excellence is not measured by the stores of knowledge we may possess; it is not measured by the aggrandizement of self, but it is measured by the good we may contribute to the uplift of mankind.

The education of the twentieth century must be an education for power and service and not for acquisition. It must be an education that promotes culture, the culture of the whole man in every attribute—moral, physical, and intellectual. Some educational systems have been defective in that they have not tended to the cultivation and development of the whole man. As someone has quaintly put it, we have been living in only a part of our house, with some of the best rooms unfurnished. True education tends to the development of every faculty of manhood and womanhood.

There is another element that the nineteenth century has developed that will be, and is, an important factor in twentieth-century education. Hegel, in a course of lectures delivered in 1822, said: "The eastern nations knew only that one is free; the Greek and Roman world only that some are free, while we know that all men, as men, are absolutely free." While the universal application of this statement may be criticized it does contain this truth—that the progress of modern civilization has usually tended to the freedom of the individual. This tendency is general and applies equally well in politics, in religion and in education. The Great Teacher announced this principle when he declared, "The Sabbath was made for man and not man for the Sabbath."

Governments are made for men, not men for governments. Governments are of advantage just in proportion as they advance the individual interest of the people. Our government educates its citizens, not that they may be of use to the state, but that they may be of use to themselves. The modern phrase is, "A government for the people and by the people." This individualism in politics has given us a democratic government. A despotic government is a simple affair. The despot decrees; the people obey. As individualism advances, the government becomes more complex, for we must harmonize the will of the many who compose the body politic. The Iron Chancellor has well said: "Whatever we would have in the state we must put in our schools." Our schools must train up men and women who will be able to solve the problems of democracy as they arise.

Our institutions of higher education in the twentieth century must be safe and reliable leaders in all educational movements. They should be conservative to the extent that safety demands but aggressive and persistent in their advance. They should stand for the highest degree of intellectual culture. They should represent the best there is in the educational world. They should be the exponent of the highest form of culture—that true culture which has the intrinsic merit in itself, and whose purpose is to benefit the individual by enlarging his capacity for the enjoyment of knowledge, and the cultivation of those powers that will enable the individual to satisfy this increased capacity for enjoyment. The power of self-development should be placed within the reach of every student who matriculates in our higher institutions. Self-development means self-enlargement, self-control, not merely intellectually but in all the directions that tend to perfect manhood and perfect womanhood.

The institutions of higher education must have a moral tone that is healthful to the religion and morality of the state. They should attract to their neighborhoods those who seek pleasant homes and a refined community where intellectual gifts are at a premium. They should attract, for here should be found the surroundings that tend to the growth and development of character without being contaminated by the greed of avarice or the frivolousness of so-called fashionable life.

Notwithstanding the many and varied pursuits students must follow in after life, all must be citizens. So, as varied as the work must be, through it all and in it all must permeate an atmosphere of freedom and of manhood. Those who go forth from our training must go forth stronger in every attribute that belongs to manhood and womanhood, or the work of higher education is a failure. There is such an intimate relation between the intellectual and moral faculties that it is impossible to submit one to the right kind of training without affecting the other in a favorable manner. The best product of the schools is marked by conscientiousness and stability of character. A man is liberally educated when he has such a command of his powers that he can complete work and turn from it knowing it is complete and that it will stand complete though all the critics combine against it. Liberal education gives a man control of himself. He knows his own capabilities and his own powers. He knows his own limitations and in those limitations he possesses that self-confidence that promotes success in all his undertakings. Liberal education takes away the dictatorial spirit. It enlarges sympathy. It promotes toleration, represses selfishness, and by elevating the individual enlarges the horizon and gives a broader outlook on the world and on humanity.

COLLEGE ETHICS

CHAS. FORDYCE, DEAN OF TEACHERS COLLEGE, THE UNIVERSITY OF NEBRASKA
LINCOLN

A refreshing series of ethical waves has recently swept over our country, resulting in a purging of the commercial, political, and social atmosphere and creating a new type of moral sense; the wording of this theme suggests, however, that the crusade against existing evils has penetrated less deeply unto collegiate circles than into the arena of the business world. The phrase "college ethics" seems to imply that the man so fortunate as to be registered in a college, may be governed by ethical law unlike that outside the classic halls of learning, that the Golden Rule does not apply to the gownsman in the same way as to the townsman.

Have not the patrons of our schools a right to hope that the moral upheaval that is at work to eradicate the evils in the business and political world may arouse college authorities to correct the inconsistencies prevalent in our higher institutions of learning? Should it not become clear that cheating is cheating, whether in the classroom or in the counting-room; that stealing is stealing, whether engaged in by the student or the civilian; that gambling is gambling, whether indulged in by the sport on the New York race-track or by those matriculated in the christian college? Deceit, vandalism, theft, and murder are crimes, whether perpetrated by men and women in cap and gown or by those in civilian garb. The adjective "college" before the word "ethics" does not grant the student a freedom in conduct not conceded in the market place or in the church pew. Is it not time that the moral wave that has given business men a new sense of honor should sweep through the college halls, for out of these halls are the ethical issues of the commercial, social, and political world? It is significant that the leaders in almost every avenue of life are the men and women who have had the good fortune to enjoy the blessings of higher education; since these college-bred men hold most places of honor, trust, and influence, it is imperative that the seats of learning should be dominated by the best of moral forces. We should adopt the maxim of the Prussians that "Whatever you would have appear in the life of a nation you must put into its schools." President Roosevelt has recently said:

> The most characteristic work of the republic is that done by the teachers, for whatever our shortcomings as a nation may be, we have at least firmly grasped the fact that we cannot do our part in the difficult and important work of self-government, that we cannot rule and govern ourselves, unless we approach the task with developed minds and with that which counts for more—with trained characters.

Our schools are the crucibles in which are elaborated by a mysterious alchemy the forces that determine the ethical character of our common-wealth; to set up one code of morals for the college hall and another for the street, trains our citizens into a duplicity of life that all subsequent restraint fails to correct.

The four years of college life form habits from which the youth rarely breaks away in later years; if selfish in college, he is likely to be selfish through life; if his impulses are altrustic in college, he will have a deep interest in others ever afterward; if he cheats in the classroom, he paralyzes his conscience and lays the foundation for cheating in business; if he is good only when under the watchful eye of a proctor, he is not likely to make a safe clerk with whom to intrust another's business; if he bets at the football game, he has laid the fundament for gambling anywhere and everywhere.

There is certainly no excuse for the laxity in morals thus found in our colleges, for there is no place in the world so favorable for the development of a keen sense of duty as here; men in the contests of commercial life are apt to make pecuniary rewards the goal of effort, but the man in quest of scientific and literary facts, seeks them independent of the warping effects of monetary returns; the statesman is apt to be reduced to the level of the politician as a result of inducements incident to securing office; but the student in search of historic truth is impressed with the fact that largeness of life and high altruistic motive rather than a greed for gain or office are the factors that have inscribed names on the roll of fame. A man successful in any profession is apt to have all interests increasingly centering in a selfish life, but the student's mental and moral horizon continually enlarges as he learns that the good and great of all ages have devoted their energy to the service of others. It is true, as we should expect, that students as a rule have a high sense of honor; their ethical life usually conforms to the highest criteria and there are reasons for believing that many of the evils in university circles are, at the outset, less a matter of ethical dictate than of prevailing custom and sentiment; that many of their breaches of moral conduct are not the result of intentional wrongdoing, but rather of college usage; most of the evils mentioned are the outgrowth of a custom-warped judgment rather than of the heart—the issue of practices that have grown up in the athletic field and in other places where there are, as yet, no well-defined rules of conduct.

> I am convinced that in many instances of supposed under-handedness in college athletics, the case is one of perverted vision rather than of moral obliquity. We need constantly to remember that many things which to the faculty and the outsiders appear palpably dishonorable are not so regarded by the student, because he is in the grip of a collective athletic sentiment of which others know but little. He is in need of enlightenment rather than of censure. He is a reminder that athletic tactics have not been adequately interpreted to college students in simple terms of right and wrong. The strategy, for example, by which a pitcher leads a runner on the bases to over-estimate his chances "to get away" is perfectly legitimate; but the strategy employed by the catcher who habitually pulls the ball down as he catches it, and thus leads the umpire to call it a strike is dishonored. The principle is perfectly clear; to practice deception on the umpire is to practice imposition on the opposing team. But how many students pause to make the distinction and how often has it been made clear to them?[1]

The ethical difference in these two cases is not easily seen by students; there is here, as in many other cases, need of enlightenment. If the students do not see such distinctions, they are apt to accept the dictates of custom, which has in most instances grown up thru a laxness naturally arising from a strong temptation for each one to think that what the student body does is all right. Let one college community establish an annual "shirt-tail parade" or "sneak-day" and others will soon adopt these disgraceful ceremonies, without even weighing the moral effects on their scholastic life; let one team win the day in the athletic field by a new species of strategem, whether honorable or dishonorable, the new tactics are likely to be incorporated in the maneuvers of other teams. It is a sort of accepted notion that to take advantage of an opposing team when the umpire is not looking, is justifiable. This practice is so common that it has almost become an established law. Indeed expert cheating often receives applause. Equally dishonorable are many of the customs in the classroom, where cribbing and other forms of deception go on under the eye of the school authorities; students even maintain that it is no serious offense to cheat under the watchful eye of the proctor, claiming that where there is no confidence, cheating is no crime.

The need of a quickening of the conscience of student bodies, of a crusade against these low standards of conduct is everywhere felt, proof of which is evinced in the recent establishment of an International Committee on Moral

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[1] C. A. Smith, *Educational Review*, 1905, p. 389.

Training. This committee of teachers and public-spirited men from various countries was organized in London, a little over one year ago, for the purpose of studying the untoward moral tendencies in our schools and of devising, if possible, such means as will contribute to an improvement in methods of moral instruction. The commission has already collected data throwing much light upon the causes of lax moral conditions. It finds, in general, that too little attention has been given by faculties and school authorities to the subject of ethical standards; that in our higher institutions of learning, in particular, there has been a gradual lessening of the grip on the deportment of the student body; that faculties have too often been content to give students undue freedom in fraternities, in other organizations and on the athletic field; that out of this freedom, evil customs have grown that are now so firmly entrenched that they are hard to control. The recent excitement in Parliament over the Educational Bill resulted not only from sectarian jealousy, but from an intense desire upon the part of the English people to establish a school law that may bring about such changes as will inculcate in their youth ideals fundamental to high moral character and a better citizenship. Great Britain, Germany, France, and Italy have, during the last decade, been giving more and more attention to ethical instruction in their schools. Already a perceptible quickening of the public conscience is noticeable. Their public-school system, in particular, has shown an appreciable progress. This has come partly from formal systematic moral instruction, to which English schools are giving the first hour of each day and which has been a leading element in the teaching of most of the countries mentioned, and partly from the study of legends, biography, and patriotic history which tend to free the student from sectarian bias given in religious instruction. Equally potent in these schools have been the stimulating effect of the study of the masterpieces in literature where the aesthetic and emotional side of man's life has been depicted with a view of emphasizing motives essential to ethical conduct.

American colleges demand first, a tightening of their grip in the matter of general control. In their earlier history, our schools adopted the old English system by which they exercised a firm grasp upon the student body. This system became so burdened with petty restrictions that it grew more and more objectionable to the governed until it has been practically abandoned, with no substitute; as a result, we are in many cases without any clearly defined method of procedure. The union of faculty with representatives of the student body is giving desirable results in southern institutions and in many in the north. Most of the leaders among our students are mature men and women who are not only students, but responsible citizens, worthy of confidence and ready to respond to appeals to manliness and the sense of honor. Such have, probably, a stronger influence over many of their companions than does the faculty itself. It is for the few thoughtless and more impulsive that disciplinary measures are created. The student-leaders are usually closely associated with this disorderly minority whom they may easily check. The writer's experience of ten years as dean of one of our western colleges has led him to believe that fraternal organizations may be valuable agencies in matters of discipline, as they can exercise a wholesome influence over, at least, their own members. Doubtless every college officer has seen the wisdom of utilizing these organized forces. Thru this co-operation with the students, much may be done toward the establishment of a more wholesome set of regulations for conduct on the athletic field, and in the matter of elevating the standard of authorship of papers in the classroom.

The writer is convinced that indolence and general dissipation of mental power are responsible for many of the evils above mentioned. Laziness weakens one morally as well as mentally; a loafer is incapable of ethical growth because his mental fiber is too dormant to assimilate moral nourishment; vigorous, persistent work of any sort begets concentration, self-reliance, and tenacity of purpose, all of which have a moral import. The principal value of athletics lies in the fact that nothing but the student's best efforts are tolerated on the field; such efforts have a reflex psychic influence of incalculable worth. A considerable percentage of our students do not go to college, but are sent; they straggle into the institution with no serious intentions of work; as a rule they come from opulent homes, dress attractively, and flit about as society leaders; their example is deleterious to students of laudable intentions who are often thwarted from their course by these so-called society leaders. A large body of the students yield to the dissipations of loafing and of social life, neglect their studies, and then come up for examination unprepared, where the temptation for deception is strong. Three-fourths of the cheating in the classroom is, doubtless, created by a lack of preparation to meet assigned tasks.

Finally, let me say that the ultimate solution of this problem lies with the faculty itself, for just as the foundation of the house asserts itself all the way from cellar to garret, so does the character of the faculty limit and determine the atmosphere in which the student lives. "As is the teacher so is the school," is an old proverb from whose truth we cannot escape. Philip of Macedon once wrote to the great teacher Aristotle saying, "I thank the gods profoundly for giving me a son to inherit the splendid fortunes I have gained, but I thank them more profoundly that they have given me that son in the lifetime of the great teacher, Aristotle, who alone can teach him how to maintain and extend his splendid inheritance." The infamous Nero caused his beloved teacher Seneca to be put to death because, as he said, "I hear at every step of my bloody career, his gentle, luring words in my ears." He thought that if the voice of Seneca were stilled in death, this would arrest its disturbing warnings; but found that the admonitions of a great teacher, even tho the voice be silent, live on. If this be the force of a teacher, how important that our faculty be made up of men whose lives are worthy of such a place in ours. Many of our instructors not only lend nothing to the uplift of the moral atmosphere of the institutions served, but rather detract from it. There is scarcely a college where there are not petty factions in which jealousy, selfishness, and unlawful ambition lead them into measures to satisfy personal ends. The student-body soon learns of these disgraceful conditions and are, many of them, drawn into the unholy cliques to lend their aid to the contention. An atmosphere of general dissension is soon created and students, following the example of faculty, acquire the habit of gratifying unlawful ambition at any cost. A teacher's power is infinitely more in what he is, than what he teaches. "How can I hear what you say," said Emerson, "when what you are is continually thundering in my ears?" It is this contact of student life with that of the faculty that counts for more than all else in the morals of our institutions. Really the strongest lessons that we teach are the lessons we do not teach, but those that emanate from our personality. As the apostles at Emmaus felt their hearts burn within them as Christ spoke, so the student feels the life of a great, noble, and sympathetic teacher. History is replete with examples of such teachers, among them Thomas Arnold of Rugby stands prominently. The secret of Arnold's marvelous power lay not in his superior academic training, but in the fact that his heart throbbed with greatness and goodness which reached out, touched, and molded the lives of his boys, whose sports and studies he shared. Mary Lyon of Mt. Holyoke, by her consistent life, ever held before her young women the ideals of a pure, noble womanhood; so completely were these ideals ingrained in the lives of these students that they reflected them everywhere they went in after life. It is this subtle influence of heart upon heart, and soul upon soul that counts for ethics in the college halls, without which all formal instruction is worthless. Such has been the influence of Aristotle, Plato, Socrates, Aquinas, Erasmus, Savonarola, Pestalozzi, Arnold, Mary Lyon, and a galaxy of others who have lived and taught down thru the ages. With such teachers, the ethical life of our colleges will revive and send out such a moral force as will eliminate the evils of the commercial, political, and social world against which legislation is now directed.

CARE OF FRESHMEN IN LARGE UNIVERSITIES

ROBERT J. ALEY, INDIANA UNIVERSITY, BLOOMINGTON

The great interest in higher education by the state has resulted in a number of large and strong institutions. The commendable philanthropy of some of our wealthy citizens has greatly increased the strength and wealth of numerous privately endowed universities. The growing interest of the state and the increasing philanthropy of wealth will soon give us larger, stronger, and better schools of higher learning. The big university is a permanent factor in our educational development. Its problems are many and must be faced bravely. The one that cries for immediate attention is the care of the freshmen.

The small college with its attendance of a few hundred has rendered service of untold value. No friend of education is insensible either to its past worth or its present importance. It has planted the truth and held aloft the torch of learning by sacrifices and with a devotion that must always claim the admiration of the world. Its endowment in money and its richer endowment, the devotion of its alumni, insure its permanency. It will continue to be a molding and uplifting influence in education. Its history and its work will ennoble because of its spirit of devotion and sacrifice.

The great university and the small college are each strong. The large one with its wealth may furnish libraries, laboratories, and famous research investigators as well as superior teachers. It can offer the student a wider touch with men and life, and thus give a more cosmopolitan education. The small college may give the opportunity of close personal contact between student and professor. It can, because of its small student body, make its life approximate very close to that of the family. The president and his faculty may know personally all the students and thus be able to assist each one in the friendly way that close acquaintance makes possible. The small college has great strength in its wise and unselfish devotion to the individual. The great university in its struggle to keep a material equipment adequate for the ever-increasing number of students has forgotten, at least in part, the needs of the individual. All great schools were once small. In their greatness the source of youthful strength should not be forgotten.

In any study of our educational problems, it must be remembered that the conditions are American, not German. Too often the American school is modeled after the German type. The American freshman is not the equivalent of the first-year student in the German university, either in scholarship or age. The German student has the advantage of at least two full years of very rigid discipline. Even with this advantage the freedom of the university is frequently too much for him. The failures are numerous, frequently being as high as one-third the total number entering. The American entering student is merely a freshman and in no sense ready for the bewildering freedom and utter lack of care that characterizes the German type of university. In Germany the equivalent of our freshman is still in the *Realschule*, or the *Gymnasium*, under very close personal care and subjected to most rigid discipline. The American university problem is to find means by which the desirable freedom of the university may be properly united with discipline and personal, individual care for students during at least the first two years of their college life. In most small colleges this problem does not exist, mainly because it has been kept solved. The large college must solve it rightly, or its ascendency is in danger.

No class of students deserves, or needs, so much care as the freshmen. They are the raw material from which upper classmen and alumni are made. The university's first interest should be with them. In all great business enterprises high-priced skill is devoted to saving and utilizing the raw material. If this is necessary when dealing with dead matter, it is certainly far more necessary when dealing with young men and women while they are in the raw-material stage. For their care the university should spare no necessary expense. They need good teaching. They must have it if the interests begun in their high-school work are to be continued and new ones formed. The young doctor fresh from the research work for his thesis, or the fellow hearing classes on the side while working for his degree are hardly the men to lead and inspire freshmen. Too often the university employs teachers for the first-year classes who could neither secure nor hold places in a good secondary school.

In grade work it has been recognized for years that the primary room must have a superior teacher. Poor work there has bad effects that extend throughout the whole grade course. High-school men are beginnng to see that the critical period in their work is the first year. Unless the work of the first year is of superior quality, the leakage is great and the quality of the last year's work is not of the high grade that it should be. The freshman is simply the primary child and the first-year high-school child grown older, but not much different. Upon his entrance into college the freshman finds himself in a world as new, strange, and bewildering as confronted him four years earlier when he crossed the threshold of the high school for the first time, or as met his wide-eyed gaze twelve years before when with two score other little six-year-olds he became for the first time a school boy. Much educational progress has been from above downward. In the treatment of freshmen the upper school should learn from those below it. It is certain that when the university gives the same careful thought to the care of its beginners as is now given by the two schools below it to their beginners, the lot of the freshman will be greatly improved and the whole student life enriched.

The first big element in the care of freshmen is money. If there is not money enough to provide for research work and for freshmen care, there should be no hesitancy in devoting the money to the latter cause. Of course the board of trustees should secure ample means for both purposes. Money should be spent freely to secure good teachers. It is not enough to secure at a large salary a great scholar and a superior teacher for the head of the department. All the men who give instruction in the department should be scholars and more than that, they should be inspiring teachers. Such men cost money. Secondary schools recognize their value and are picking them up at salaries much greater than the universities have been accustomed to pay. The pleasant fiction that there is greater honor in teaching in a college than in a high school is rapidly passing away and it will soon be impossible to get college teachers of first-rate quality except by paying first-rate salaries. For the best results it is very desirable that the teaching-force of a department have considerable permanency. Experience gives a point of vantage that the new man must gain at the expense of his students. For permanence in the force of a department there must be something more tangible than mere loyalty to the institution. Salaries must be made higher. The distance between the salary of the head of the department and the men who do the teaching in the department must be lessened. Five thousand dollars to the head and a thousand dollars to the teacher in the department is a disparity that will produce dissatisfaction and result in inferior work.

The large university should make all its positions sufficiently attractive to secure and hold strong men. When the large university makes its instructors and assistant professors of as good quality as the professors in the small college, it has successfully met one of the strong arguments against size. If a student is sure of contact with a teacher either in the large or small school, the deciding factors in his choice of a school will be material equipment, chance of acquaintance with men and his future purpose in life. He will no longer choose the small college merely because it offers opportunity for personal contact with strong men.

A freshman class of fifty is a pitiable sight. A freshman class of one hundred and fifty or more is a spectacle to make the gods weep. Such spectacles may be seen in many of our large universities. Men are individual even when they are freshmen. They cannot be successfully managed in large crowds. These young people are fresh from the secondary schools where they have been taught in classes of twenty-five or thirty. There they have been held to rigid requirements and have been accustomed to give an account of their stewardship each day. The transition from the personal care and individual requirements of the high school to the mass-treatment in the freshman class is discouraging, bewildering, and many times ruinous. The mass-work of the large class makes it difficult, if not impossible, for the student to get insight into the subject sufficient to make it interesting. As a result he becomes a hanger-on and all his attempts at work are mere drudgery. His discouragement easily passes into despair and he is likely to become one of that large class labeled "lost and unaccounted for." The institution, large or small, that is compelled to care for its freshmen in classes of more than thirty ought to reduce attendance or go out of business. The large freshman class takes the time and money of the student without the possibility of giving value received in return. No university ever properly meets its duty till it employs a teaching-force large enough to make small classes possible. Here, again, the proper care of freshmen cannot occur without the expenditure of money. A large teaching-force of strong men is indispensable if many students are to be cared for so that leakage and failure shall be kept low.

The freshmen need good teaching. They will not be properly cared for until they have it. Critics say that the poorest teaching in the world is in the colleges. A visit to some freshman classes will cause one to believe that the criticism is half true. That there is far too much poor teaching we must all admit. Although there is much good teaching in all the colleges, there is not yet enough of it to counteract the bad. The establishment of schools of education in the colleges has done much and will do more to make college teaching better. The increasing demand from all schools below the colleges for teachers with professional preparation for their work must finally cause the colleges to look for more qualifications than scholarship when they employ instructors for freshmen. If grade children and high-school boys and girls are worth enough to demand teachers who in addition to good scholarship have studied the science and art of teaching, and have practiced under the eye of an expert, why are the freshmen, the choice and pick of all of these, not entitled to equal consideration? No college, large or small, has quite done its duty to the freshmen until it has supplied them with teachers who can teach.

The absolutely necessary conditions for good work in college or university are good material equipment, scholarly, cultured and well-paid men, who believe that their first duty is superior teaching, and satisfactory arrangements for keeping all classes of first- and second-year students small. These conditions, however, are not sufficient. The university has not done its whole duty until through its administration the individual is reached. Some substitute must be found for the *locus parentis* of the old and small college. It will hardly do to assume that because the numbers are so large the leakage must be proportionately great. The complacent assumption that when men, libraries, and laboratories are provided the university has performed its whole duty is already challenged by the parents who furnish the raw material for the plant. The individual is too sacred and too valuable to be forgotten or neglected. The university should make strong individuals. Looked at as a factory for the making of men it is a failure if its products are uniform. Diverse individual traits must be recognized and then developed or destroyed as the case requires. This can be done only through close personal contact with the individual.

Some of the large universities have endeavored to reach and care for the individual through the patron professor. Each student is assigned to some member of the faculty who becomes his guide and counselor. Theoretically the plan commends itself. The patron takes the place of the parent and because of his wide training and large experience with young people he is able to be a helpful guide to the student. The practical difficulties in this method are great. The modern professor is not able to give expert advice outside his own field of work. He generally has neither the time nor the inclination to become closely acquainted with students other than those of his own classroom. As a result the contact is perfunctory. Many times a student sees his patron but a few times during his whole college course. The plan looks well in the catalog; it quiets the fears of anxious parents; it occasionally saves an individual; but as a general working plan, it is not to be commended.

Nearly all our large universities are now organized on the department plan. In these schools the student's individual needs are looked after by the professors in the department to which he attaches himself. They advise and direct him in his work. They also look after his habits, methods of study, general reading, in fact, everything that may contribute to his efficiency as an individual. This method takes excellent care of the student after he selects his department. It misses the freshman entirely. Only those who survive the leakage of the first year come under its beneficial care.

Princeton University, by the establishment of the tutorial plan, has done much to solve her own problem in caring for the individual. She has rendered great service to education by causing college men everywhere to think seriously and plan carefully for the more rational care of freshmen. Princeton's plan has strength and weakness. Its strength has been admirably shown in the many public utterances of President Wilson, Dean West, and other Princeton men. Its cost is so great that most institutions will hesitate before introducing it. Very few modern trained men are wise enough to advise a freshman in all the fields of study that he may enter. Perhaps the greatest weakness in the plan is that it tends to relieve the regular professor of that close, sympathetic touch that every teacher should have with his students. The real work of the university should be done by its faculty. Anything that has a tendency to put the molding, directing power elsewhere is fraught with danger.

At Indiana University for the past year and a half two of the larger departments have been giving special consideration to the freshman. A description of the work in mathematics will show the plan clearly. The classes in the freshman work are kept small, rarely exceeding thirty students and averaging about twenty-five. These classes meet for regular recitation work four days of the week. On the fifth day, instead of the regular recitation, the teacher of the class spends four hours with his pupils, meeting them in small groups of four or five. In these weekly conferences the student is encouraged to talk freely of his difficulties and is sympathetically helped to master them. Part of the conference hour is generally spent in a spirited review of the most important things studied in the past four lessons. The strong and promising student is encouraged and collateral work of interest and value is suggested to him. The weak and struggling student is shown where he needs to put more emphasis, and is patiently helped to unravel his difficulties. The results have been very gratifying. The number of failures has been reduced to almost nothing and the number of students continuing the study of mathematics has been greatly increased. In English composition the plan has given results equally gratifying.

The extension of the plan to all departments that teach beginning classes will mean that the freshman will have as a friend and personal helper every man under whom he studies. In each study he will be directed by a man who knows both him and the subject. In a conference of one hour a closer personal and individual contact can be made than in the work of the classroom during an entire month. The conditions are most favorable. The student is anxious for success and the teacher desires it. The timidity and embarrassment that many students show in the classroom entirely disappear in the conference and the teacher and student work as friends mutually interested in attaining a common end.

In conclusion, the freshmen is so valuable that he deserves the thoughtful, considerate care of the entire university organization. He must be met and treated as an individual. The glory of his alma mater is in his individual achievements. Her glory for the future is secure only when she gives to every freshman the care that will make him individually strong.

THE RELATION OF THE WORK OF THE COLLEGES TO THE WORK OF THE MEDICAL SCHOOL

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Among the questions engaging the attention of the colleges of this country few, if any, are of more vital importance than the relation of the colleges to the medical schools. Judging by the discussions of the subject whether by college people or by the medical fraternity it would seem that the colleges and the medical schools are about equally interested. The colleges are interested because their integrity is affected and their right to a place in the American scheme of education is called in question. The medical schools are interested because their relation to the colleges touches such vital questions as attendance, income, scholastic standard, and length and character of the courses of study. Contributions to the general discussion are being made not only by the colleges and medical schools themselves, but by medical societies, examining boards, public-school boards, and in fact by nearly all who have to do in any way with the educational program of this country.

The subject assigned me is so large that I shall not attempt to discuss all phases of it, but shall take the liberty of confining myself to a discussion of The Place of the College in the Program of Preparation for Entrance to the Medical School. In a general way I want first of all to present a brief review of the situation as it now is, then I want to point out some of the things we ought to strive for.

A. THE PRESENT SITUATION

One of the most interesting and helpful discussions of this subject occurred in January last in the city of Pittsburg at a special conversational meeting of the American Academy of Medicine. After some interesting papers had been presented and considerable discussion had taken place the president of the meeting, Dr. Thomas D. Davis, read to the members present a few items he had jotted down—items which seemed to him to express the consensus of opinion as revealed in the conference. The items were as follows:

> First, A preliminary college education is just as important as ever, and for the same old reasons.
>
> Second, That it is advisable for a few medical colleges to require the A.B. degree for entrance to their institutions though at this stage of our development it is not advisable for all medical colleges to have such strict requirements.
>
> Third, That the requirement of the medical colleges and state boards that four years and nothing less be required for a medical degree is an arbitrary one.
>
> Fourth, That universities, as a compromise, may have a combined course of seven years.
>
> Fifth, That too much time is consumed in public schools and high schools. In Germany almost two years are saved in this regard.

Sixth, That a thorough public-school and college and medical course should be arranged to be completed in twenty-four years and that it can be completed in that time.

These ideas seemed to Dr. Davis to be practical working ones and he asked the members of the Academy to confine their remarks to them. The discussion which followed showed quite general acceptance of the statement made by President Davis.

Keeping his statement in mind I wish to point out in a general way the attitude men are taking toward the question of the place of the college in the program of preparation for entrance to the medical school. There are actually only three possible positions that men can take:

1. *A college course is not necessary to an adequate preparation for entrance to the medical school.* There are those who go so far as to maintain that a college course is not even desirable, that it unfits rather than fits for entrance. Within two years I was present at a meeting of college and university presidents where the subject of the relation of the colleges and medical schools was under discussion, the particular phase of the subject commanding attention being whether certain scientific work done in college should be credited in the medical course. A representative of the medical department of one of the great universities of this country who was present calmly told us that in his judgment, based on the experience of many years as professor in a medical school, high-school graduates were better workers and accomplished better results in their medical studies than college graduates. He even went so far as to say that a careful examination of the records of his institution had been made comparing high-school graduates with college graduates and that the result of the investigation proved beyond a doubt that the high-school graduates maintained higher standing in their studies than the college graduates and that the success of the high-school men after graduating from the medical school was as great if not greater than the college graduates. You can imagine that the college presidents in that meeting were not particularly pleased with the statements made by this medical professor. What he said was so out of harmony with what we had been telling our patrons and so out of harmony too with the results of investigations published from time to time in some of the magazines of the country and in Who's Who, that when the meeting adjourned there was quite general feeling among the college men that if this medical professor had actually represented the prevailing sentiment of the medical departments of the universities the time had come for the colleges, particularly the so-called small colleges, to combine and see to it that so far as possible their graduates should go only to those medical schools which required the bachelor's degree for entrance.

In justice to the medical department of the university referred to I ought to say that the Dean of the said medical school shortly afterward asked for an interview with one of the college presidents and assured him in the most positive way possible that the professor who had been present at the meeting had not at all represented the sentiment of his school. He insisted that they wanted college men—wanted many more of them than they had and that they were just then raising their entrance requirements in order to secure a much larger number of college graduates. But the medical professor who spoke his views in the meeting described represents a class, and a very large class, who hold that a college course is not only unnecessary but is not even desirable as a preparation for entrance to the medical school. I am bound to believe that this class does not number as many as it did twenty-five years ago and I desire here to express my conviction that it numbers more today than it will twenty-five years hence. The fact remains, however, that there are medical men and in considerable numbers, many of them professors in medical schools, who do not believe in the college course as a necessary or even as a desirable part of the preparation for the study of medicine.

Then there are those who hold that while a college course is desirable for the few—the favored—it is not actually necessary. Their chosen lines of argument are: that the medical profession could not be supplied if a college course were required of all candidates; that many young men of limited means would be kept out of the profession; that many men of good minds whose mental awakening did not occur early would be altogether debarred.

2. *A partial college course is desirable and perhaps necessary for entrance to the medical school.* The number holding this view is decidedly on the increase. Not all who hold it would work out the problem in the same way. In fact they do not. There are three different methods now in actual operation. One is the method by which a combination course is offered in some of the universities making it possible for a student to finish both a literary and a medical course in seven years. The plan is this: A student does three years of straight college work in the liberal-arts department of the university; then, instead of taking his senior year in the college of liberal arts he enters the medical department and after successfully completing the first year's work he is given his bachelor's degree and three years later his medical degree. This method has proved rather attractive and has done much to increase the attendance at certain large universities to the detriment of some of the small colleges. Another method is that by which the small college enters into alliance with the university whereby the college excuses a student from residence during his senior year with permission to return for his bachelor's degree after he has successfully completed the first year's work in the medical department of the university. This method has not been sufficiently tested as yet to justify the drawing of any conclusions. It may be safely predicted, however, that if the small colleges find that they are losing students in considerable numbers because of the combination course offered in the universities, they will combine for their own protection and excuse from residence during the senior year those students who expect to take up the study of medicine. Still another method is for the medical school to require at least one or two years in college as a preparation. Marked advance is being made just now in prescribing requirements of this kind. I think I am right in saying that beginning

with the scholastic year 1910–11 at least a half-dozen of our best medical schools will require two full years of college work for entrance. In one or two instances at least such requirement will be made with the expectation that the candidate for medicine having finished *two* years in college will find it to his advantage to take a *third* year and receive the bachelor's degree from his college after one year in the medical school. If this expectation is realized it will mean a vast increase in the proportion of college graduates in medical schools within the next ten or fifteen years.

3. *A full college course is desirable for entrance to the medical school and ought to be required wherever possible.*—This may be called the traditional view of college people. It is a view which is argued, as Dr. Davis suggested, "for the same old reasons." These reasons may all be summed up in a single sentence. The college differs from the technical or professional school in that its aim is to prepare for a *life* and not for a profession. The college takes the boy at seventeen (this I think is the ideal age for entrance to college) and guides him in the pursuit of liberal studies for four years. The one idea during these four years is manhood—intellectual, cultured, moral, and spiritual manhood. No other period in a human life surpasses in importance the years between seventeen and twenty-one, while the boy is slowly but steadily developing into the man. During these years his attention ought not to be diverted from the one and sublime ideal of manhood. Some bright boys will be able to enter college to advantage at sixteen, many will not be able to enter until they are eighteen. But whether the four years be from seventeen to twenty-one, sixteen to twenty, or eighteen to twenty-two the ideal is the same, a liberal education, a fitting for *life*—the pursuit of such studies as will best develop the mind and heart of the ambitious youth until he shall have reached what the state regards as his majority.

B. THINGS TO STRIVE FOR

Having thus briefly reviewed the situation I have only time to describe in the merest outline some of the things we ought to strive for. The colleges on the one hand have for their ideal a full college course as a part of the preparation for entrance to the medical school. They will consent to three years in college and the senior year in medical school only as a compromise. The senior year in the average American college is a unique year. The studies pursued are elective. The associations are unlike those of any other year of the four spent in college. The senior receives recognition given to no other classman. Besides there is put upon him added responsibility. In a sense he becomes a part of the governing body of the college—fosters its traditions, stimulates its life, helps to create its ideals. Many a college man looks back upon his senior year as the year in which he came to himself, the year in which he got a grip on things, so to speak. It is the senior year that does more perhaps than any other two years in college to fix intellectual and moral character. The ambitious young man can ill afford to lose the senior year from his college course.

But if the colleges are bound by their traditional ideals the medical schools are embarrassed by the new conditions they face. The old methods of teaching were purely didactic and demonstrative. The expense of maintaining a medical school was comparatively small. But in these new days when laboratory methods are insisted upon the expense of maintaining a medical school is increased many-fold. Medical schools like colleges sometimes accommodate their standard to their needs. Money must be had for maintenance and the easiest way to get it seems to be through students' fees, hence emphasis upon large attendance. There are medical schools with abundant endowment, particularly those which are departments of universities. They have fine buildings, adequate laboratories, rich equipment, and strong faculties whose salaries are not at all dependent upon fees received from the students. Such schools are quite inclined to set high standards. Here then are the two extremes—the schools dependent upon students' fees and the schools with adequate endowment. Between these two are many means which I have not time to describe.

Notwithstanding decided limitations and some misunderstandings there are certain things which both the colleges and the medical schools ought to strive for. Let me name three or four of them.

First, *An increase in the number of high-grade medical schools which require the bachelor's degree for entrance.* There are at least two of these schools in existence now. We ought to have at least two more within the next two or three years. In these schools a careful test could be made with a homogeneous student-body, men of comparatively equal preparation. Within ten years these schools would have a fairly well-defined product which might be examined and compared with the product of schools having lower entrance requirements.

Second, *The fixing of a minimum scholastic standard for admission to the medical schools.* The college people ought to be generous enough to recognize that every prospective student of medicine cannot take a college course. The medical schools, on the other hand, ought to join with the colleges in urging a minimum scholastic standard. The time has come when at least a good four-years' high-school course, or its equivalent, ought to be required. I should not insert the word "equivalent" but for the sake of the few mature men, of—say thirty or thirty-five years, who have never had the advantage of a good high-school course but who are qualified to do fairly good work in medical school in the same class with high-school graduates.

Third, *We ought to look forward to an academic as well as a time requirement for the medical degree.* Some of the work which the medical schools profess to do is being done now by the colleges, and done better; work in general chemistry for instance and general biology. It may well be questioned whether anyone ought to be admitted to a medical school who has not had at least two-years' experience in a well-equipped laboratory.

Fourth, *The requiring of an age limit for entrance upon medical studies.* I have long believed that the medical school is no place for boys. The nature of the studies pursued is such that a certain degree of maturity is required—maturity of body, intellect, and character. If I could have my way about it no one would be admitted to any medical school in this country until he has passed his twentieth birthday. Even with this requirement the age for graduation would be twenty-four. There are few people, I take it, who care to risk having a young man under twenty-four for their family physician. This matter of age is a strong argument for the college course. The average college graduate can easily finish the medical school, under the present requirements, at the age of twenty-five or six, and some can do it at twenty-four. The medical profession is unlike all other professions in the maturity demanded of those who enter upon it.

In view of the many and difficult problems connected with the relation of colleges to the medical schools I gladly hail the promise of more intimate relationship between these institutions. Conferences, formal and informal, have been held. Many more will be held. There has been much discussion. There will be much more. But out of it all may we not expect a clearer understanding of the present needs and a deeper appreciation both of culture and of service?

PEDAGOGICAL DEPARTMENTS IN COLLEGES AND UNIVERSITIES

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In discussing the place of pedagogical departments in American colleges and universities, and especially with reference to the departments of liberal arts, I need not remind this audience of the youthfulness and rapid rise of those departments and their consequent lack of traditions. Their professors have not always been scholarly men, and even the abler ones have not always pursued their work in a scientific spirit; but I need not also recall that, in spite of quiet depreciation, active opposition, and sometimes downright hostility on the part of other departments, and in spite of the tentative and often unscientific character of the content of their courses, they have, nevertheless, developed in the large majority of American colleges and universities, and have become year by year more influential. We can safely say now that they have won their way not as an educational fad or fancy, nor owing to any general recognition within the college of their usefulness, but in response to an active tho illy formulated demand on the part of the public, the teaching profession, and the prospective teachers in the student body. They have in reality developed out of the public-school system as have the normal schools, institutes, summer schools, and the other agencies by which American education, in its democratic and indigenous character, has sought to realize itself. The public demand that graduates of the colleges, entering the schools, should be actually rather than nominally prepared to render the service that they offer themselves for and for which the colleges recommend them. This demand has been widespread and profound, even tho not always articulate. College presidents, boards of trustees, and alumni have listened, and finally the faculties themselves have responded.

The departments of education, hastily organized in response to this demand, found little material at their disposal, while the influence of other and largely unrelated departments was still preponderant. It was inevitable that their professors should continue within the college those methods of propaganda which still play no inconsiderable part in popularizing and idealizing American public education. But gradually they have caught the pace and spirit of the university and college; their instructors have embraced the standards of the higher professional education; here and there their professors and advanced students have acquired the patience and industry needful for scientific work; and, as a result of their study of public needs, they have contributed much to our present standards and knowledge of the professional training of teachers. In some institutions these departments have become purely professional schools; but this condition is not general. It is by no means yet agreed as to what, within the next few years, is to be the part played by pedagogical departments, especially in connection with the liberal-arts departments. The writer believes, however, that tendencies now at work indicate a fairly definite outcome of the matter, determinable mainly upon the kind of teaching ability which the public will demand from the schools.

At the outset, let us assume without discussion the following conditions: (*a*) A large proportion, varying from 25 to 75 per cent. of the graduates of the departments of liberal arts take up teaching, at least for a time. (*b*) Except in institutions with fully equipped teachers' colleges, it is not practicable in the college to give adequate preparation for teaching in the elementary field. (*c*) As at present constituted, departments of liberal arts, working in conjunction with departments of pedagogy, must prepare teachers primarily for secondary schools; tho in graduate courses, preparation may be given for normal-school positions, and for administrative work in public education. (*d*) The field of high-school teaching is rapidly expanding in importance as these schools acquire independence of the colleges and minister to an increasing proportion of the public. (*e*) Fewer teachers, especially men, are encouraged to take up secondary-school teaching as a stepping-stone to something else. (*f*) Unlike the European system, American secondary schools offer no opportunity for the apprentice; the teacher must from the outset assume full responsibilities; hence the general demand that prospective teachers shall have been trained not only broadly, but also intensively and practically, so that from the outset their work shall be free from gross blunders and demoralizing failures.

A large part of the work of the American college, then, has been the preparation of secondary-school teachers. To a certain extent the public has made of it a professional school; but the college has only by implication admitted this, and it has never been willing to assume its full responsibilities. The liberal-arts departments have been reluctant to allow their work to be determined by professional considerations, and, tho eager to see their graduates appointed to teaching posts, have disclaimed responsibility for their success or failure. When the departments of education have undertaken in some measure to organize professional courses for those students who desired to teach, they have frequently met the opposition of various faculty members who have feared the tendency to modify their work for professional purposes. On the other hand, when it has been suggested that special graduate courses or professional work in other institutions should be assigned to the graduates who desired to teach, there has generally been resentment in the departments of liberal arts that their work should be regarded as insufficient for prospective teachers.

It cannot be denied, of course, that this attitude has been a natural one; the professional training of teachers is not an old idea, and the world has made so long a struggle to have teachers equipped with that first part of their training which consists in knowledge of subject-matter, that it is not surprising that some have forgotten or have never learned that mastery of the thing to be taught is but part, even tho the major part, of the true teacher's equipment. In the last quarter of a century there has arisen a strong demand for something better, however, than the mere college graduate as a teacher. This demand is roughly to the effect that the teacher shall, as preparatory to his assuming full responsibility, have been somewhat subjected to a selective process; that he shall have mastery of subject-matter; a certain immediate readiness to take charge of children and begin at once effective teaching, and that he shall have the professional outlook which will insure measurable breadth and growth. These qualities may be variously defined, and we may dispute much as to how they shall be acquired; but substantially that is what is wanted of secondary-school teachers.

It is not practicable to stop here to inquire as to what should be the training of the well-equipped secondary-school teacher. The question may be approached from two standpoints—the ideal and the practical. Few of us would hesitate to describe the ideal training of such a teacher, but we should involve ourselves in painful disputes if we limited ourselves to practical considerations. Yet this is exactly what, as I conceive it, the colleges must do to an increasing extent. They must face the fact that the public expects them to be the training schools for certain types of teachers, and they must assume their full responsibilities in the matter. They may not excuse themselves on the ground that professional work should not count toward the arts degree, or that in four years there is not time to include the professional and practical work necessary for the fairly well-equipped teacher. Of course if the colleges can insist that a year or even half-year of graduate study be required for a recommendation to teach, then by all means they should require it, provided they do not deprive the schools of sufficient teachers. But if in any state it be found that the four years required for the arts degree is all that the public will yet stand in the way of preparation of teachers, then it becomes the business of the college to organize some of its work so as most completely to train those of its graduates who will teach, within the four years given. In other respects—e. g., amount of professional work to be required, degree of specialization to be permitted, etc.—the college must face the practical problem, and not be content to remain on idealistic or general grounds.

In other words, the requirement that, as I see it, the colleges and universities must face is this: a considerable number of their graduates will enter teaching, and will want the sanction and recommendation of their institutions: these must so anticipate the graduation of these students as to be able to indicate their respective professional preparation and to require that that be followed, to the end that the desired recommendation can be complete. Each teacher must have an integral preparation, as complete as the college can give in the four, five, or even six years at its disposal, just as a prospective practitioner of medicine now must have the best integral preparation which four, five, or six years of professional work can give him. If, for example, the college receives men who anticipate being teachers of mathematics and science, starting necessarily in small high schools, then it becomes the business of the college to indicate the most effective preparation for that work, i. e., effective in the long run and taking account of the culture expected of the teacher. We cannot here say what that preparation should be; that is a practical problem to be worked out by the college, presumably after close study of public needs and the right demands of professional preparation. But it is here insisted that, as a rule, the colleges have not sufficiently addressed themselves to this practical problem; that they have often ignored its existence; that they are antagonistically disposed toward it, and that, in general, the academic departments have yet an insufficient equipment of standards wherewith to undertake its solution. In other words, the colleges have not sufficiently recognized their obligations in the matter, and they may even feel that to recognize them would imperil the best part of their present work. Of the merits of this last contention the writer does not presume to say anything. It may be that in time we shall have two types of institutions: those which frankly give much of their energy to the preparation of teachers, and others which maintain their liberal-arts work intact, free from modification for professional ends. Or it may be that within the same institution will be established two divisions: liberal arts, preserved as such; and a variety of courses in academic subjects designed primarily for prospective secondary-school teachers. More probably, however, a better compromise than either of the above is possible. But in any case it would seem that the majority of institutions must in some way give recognition to the fact that one of their large functions is the training of teachers, and that the numerous inconsistencies now existing in their relation to that function must be remedied.

Obviously the simple and logical solution is the organization in each institution of all that work which pertains to the equipment of teachers to the end that it may be purposive and organic. The very large institutions may well afford to accomplish this by means of teachers' colleges, like those now found in Columbia, Chicago, and others. But in the less great universities it is conceivable that a sufficient organization can be effected without the establishment of separate faculties. A large committee or committees from the pedagogical and various liberal-arts departments might organize and administer that portion of the work of each institution which pertains to the training of teachers. In this way a desirable intimacy of these departments can be preserved, while at the same time the preparation of various types of teachers could be secured in its most effective form. This committee would assume responsibility for the integral training of all graduates who expected the support of the institution in their candidacy for teachers' certificates or places. At the beginning of the junior year, prospective teachers would find indicated the courses, professional and academic, required for particular kinds of work, and could make their choices accordingly. There is, of course, no reason why such choice should interfere with the validity of the degree, as it is simply a form of election.

Now it is one of the conditions of the program here discussed that the committee or group in charge of this professional training should be closely in touch with the field into which the teachers are to go. Secondary-school teaching is specialized work, and peculiarly specialized, in that in small high schools teachers must take groups of subjects. Various combinations are, therefore, possible. At present, the graduates of most institutions may or may not fit the demand; there is little oversight of the matter. As a consequence the smaller high schools are plagued by college graduates who are willing to teach some subjects in which they have had no preparation. Furthermore, this committee must study the matter of the complete equipment for each special kind of teacher. Generally there is prevalent much ignorance on this point, and not least among the departments of liberal arts themselves. Stimulated by its ideals, of course, each department will claim more than it can practically obtain: but the committee must make a practical apportionment among the demands for liberal culture, professional training, and specialized knowledge of subject-matter. We know yet very little about the amount of English literature, history of education, applied psychology, and foreign language required to produce that person who, aspiring to teach chemistry and physics, may be guaranteed by the college as a fairly well-trained teacher and a measurably cultivated gentleman and citizen as well. But the interests of economy and effectiveness demand that we find out, and cease guessing in the matter.

But if the various liberal-arts departments fail of their responsibilities in the matter then it may be expected that the departments of pedagogy will assume a dominating rôle, for it is peculiarly their mission to discern the professional needs of teachers, and to procure the satisfaction of these as far as possible Already pedagogical departments have sorely nagged other departments by the quality and insistence of their demands. Not infrequently these demands have seemed to savor of the type of question which it is said a fool may ask, but a wise man cannot answer. But there can be hardly any doubt, in view of the developments in pedagogy in the last few years, that most of these questions are valid ones, and are destined to become fields of educational research. It can hardly be expected by the departments of liberal arts that they can waive criticism from the pedagogical departments unless they address themselves more fully to that part of their work which has to do with the training of teachers. Otherwise the pedagogical departments must assume increasing responsibility for the organization and direction of this work. In any event, it is conceivable that these departments must assume certain residual responsibilities in the final integration of studies. Under the stimulus of the conception of teaching as a fine art, gradually coming to rest on scientific principles, they will almost of necessity lead the way, that others may follow.

Peculiarly must this be the case if it be found that practice-teaching must ultimately constitute a necessary phase in the preparation of teachers. So far as the elementary field is concerned, this has been demonstrated and there is little doubt among educators that it is equally necessary for others as well, provided time can be found for it. So long as the public demand for high-school teachers is such that these must enter work with only four years of preparation it may be doubted whether much of that time is available for practical work; but be that as it may, in time teaching under supervision will doubtless everywhere constitute a part of professional preparation for all lines. Observation of teaching, which is now considerably resorted to, has probably been much misunderstood; as a part of the training of a teacher who has had experience it is doubtless excellent, but whether it is of more than nominal value for those with no apperceptive basis of experience and practical touch may be questioned. But the successful conduct of observation as well as of practice-teaching will of necessity increase the responsibilities of the departments of pedagogy. Somewhere must be found an integrating force; and hardly anywhere else in the typical institution may we look for it, but in the department of pedagogy.

SOME AVENUES OF USEFULNESS FOR THE SMALL COLLEGE

WALLACE N. STEARNS, WESLEY COLLEGE, AFFILIATED WITH THE UNIVERSITY OF NORTH DAKOTA

Men count it well worth while at however enormous expense to make the slightest gain in speed, excellence, or efficiency. The educational field is no exception. Impelled by a desire to make just provision for the future, yet denied the seer's vision, men often have laid foundations for structures that differed widely from the original plans. Thus the little red schoolhouse, whose gift to the nation can never be fully estimated, is after generations giving way to the consolidated rural school. Despite the service of the district school we cannot deny its limitations. But it has been worth all it has cost, and who scoffs at its crudeness confesses his ignorance of history. Likewise a change has come to the honored line of academies that once dotted the country from Maine to the Middle West. These too have felt the push of the high school. Some of them, resting on ample endowment, are still doing service, some have affiliated with larger institutions, others have passed into history. The rosters of these schools contain honorable names; their value to the nation cannot be measured.

The modern free public high school, the poor man's college, the creation of the last quarter of the century just closed, has come to the front. Thus while the academies and other private schools of the same grade have increased from 38,280 in 1871 to 101,755 in 1906, less than threefold in thirty years, the public schools of equal rank from 22,982 in 1876 have swelled to 722,692 or more than thirty-fold in thirty years. Enrolling seven and one-half millions in 1871, the common (or elementary) schools in the next five years gained half a million; but in the thirty years from 1876 to 1906 they more than doubled, from eight to sixteen and one-half millions. The total percentage increase of common-school attendance in proportion to population has since 1900 steadily declined, dropping from 20.5 per cent. to 19.9 per cent. and the percentage of population increase of our private schools has likewise since 1890 dropped from .23 per cent. to .22 per cent. But the percentage of population increase of our public high schools has steadily mounted from .05 per cent. in 1876 to 0.88 per cent. in 1906. Nevertheless, all the millions that have been expended on the academies, the buildings that have been erected, now perhaps to stand empty, all the efforts and sacrifice have not been in vain. The broader life, the larger righteousness is the sufficient fruitage. However, with all reverence for the past we must not make a fetich of tradition. The goal sought is a better citizenship, a nobler manhood and womanhood, and if the same phenomena enter into educational work that mark commercial and industrial life, we must see in the changing order the evidence of progress.

Today we face another problem. Flanked on one side by the high school with its often superior equipment, and on the other side by the technical school and the university, the college—often a university in name—is asking the question: What next? Many factors enter into and increase complications. First, students following what may perhaps be the spirit of the times, are flocking to a few great centers. The last report of the commissioner of education gives a total enrollment of 258,603 students in 622 institutions, an average of 416. But 75,242 of these students were enrolled in 25 institutions, averaging 3,000 each. Of these, twelve are state universities, ten are non-sectarian and non-state, and three are denominational schools. It must be borne in mind, however, that a few of the smaller universities, as Johns Hopkins, Clark, and Boston, are primarily non-technical graduate schools. The statistics are the more ominous since in many colleges tuition is the mainstay, and lessening attendance threatens existence. It is likewise significant that in the 25 institutions referred to above few students are below college rank, while in most of the others preparatory and other short-course students abound.

Further, the cost of education has enormously increased. The log on which Mark Hopkins and his famous pupil could sit has grown to a huge plant as expensive as it is necessary. Equipment, buildings, and men cost money. The student's time is his capital and the brief period of his preparation must be spent where it will count for the most. Twenty years ago $100,000 was counted a heavy endowment. Today universities are spending $500,000 to $1,000,000 a year and colleges half these sums. A quarter-century ago 10,000 volumes constituted superior library advantages. Today universities are offering a quarter or even half a million volumes. A further difficulty is the shifting currents of population. Institutions once the centers of populous districts are now comparatively isolated. The trend of railways and other means of communication has disturbed the social order as has also the voluntary shifting of the population, the instinct of the immigrant, and the enterprise and sagacity whereby some cities make themselves great centers with widespreading and convergent lines of travel.

There is nevertheless a place for a limited number of small colleges. This will be more and more true as population increases, for it will not be possible or indeed desirable that the great educational centers do all the work. But it will be incumbent on the small colleges to keep pace in wealth, resources, and facilities. Otherwise, they must be content with a constantly changing staff of teachers or with a corps of mediocre men save as here and there a man from sheer loyalty or aversion to change, turns his face against temptation.

The past year has been notable for gifts to smaller colleges. In a week's campaign, for example, Colorado College added a half million to its million-dollar endowment. Whitman College is in a million-dollar campaign. At least two theological seminaries are in receipt of half a million each. There are today more than one hundred colleges and universities in, at least approximately, the million-dollar class. Such institutions are reasonably safe from financial crises and the ill consequences of uncertain enrollment. They can secure and retain men and equipment of high excellence. Wealth is not the only criterion of judgment, but culture costs, and poverty is not *per se* a token of merit.

In some cases there is need of redistricting. Institutions once large in favor and centrally located are now inaccessible. The shifting current of immigration, the changing character of populations, and the fact that the establishment of permanent centers of population and activity is a thing of recent times and is still in process, all render the situation a fluctuating one and difficult of discernment. Western Reserve College, for example, located in a small country town, was in 1882 moved to Cleveland, thus becoming identified with a new and growing center. The tenfold increase in attendance within seventeen years and the corresponding growth in buildings and equipment are guaranty of the wisdom of the action taken. We must bear in mind also that colleges are not an end in themselves. They exist for the people and in bidding for patronage must seek to make the largest returns for value received. The justification of an institution is not past history, local pride, or a sentimental feeling; but present worth and efficiency. If local pride can conjure up the means of maintenance, well and good. Otherwise, local spirit by prohibiting necessary advance becomes merely a party to a mistaken policy. It is often the part of wisdom to insure service by adaptation to conditions rather than, by mistaken loyalty and pride, to become a memorial of the past. If the spirit of the age imposes new duties it is for us not to decline, but by prompt and tactful action still to maintain, our right to leadership.

Having thus allowed the retention of certain of our colleges by increased endowment, and, wherever necessary, by more favorable location, it remains to inquire what is to be done with the others.

The problem of religious education in our growing state universities and other non-sectarian schools starts a serious and urgent problem. Of the total enrollment in our country for 1905-6 of 233,588, 111,051 were in denominational, and 71,113 were in state universities and colleges. But of 116,780 students of collegiate rank, 39,285 were in denominational colleges and 48,399 were in state schools. This is the more significant when we take into account that of the denominational colleges and universities four enrolled 13,191, or 11,311 of college grade or above. The proportion of graduates and professional students was even more marked, 13,512 in the denominational as against 16,721 in the state schools.

Equally significant has been the increasing number of men in the state universities. In the ten leading state institutions of the Middle West there were in 1896–7, 10,898 men and 3,720 women. In 1905–6 there were 20,070 men and 7,376 women. The total number of all universities and colleges was in 1896–7, 55,755 men and 16,746 women; in 1905–6, 97,738 men and 31,443 women. That is, whereas in a decade the total number of men increased only about 75 per cent. and the attendance of women 89 per cent., in the state institutions, judging from the above ten the increase in attendance was 91.5 per cent. for the men and 90 per cent. for the women.

If instead of internecine strife the several denominations would transplant a portion of their strugglng institutions to larger centers, into storm areas, into association with these state and other non-church universities where today are to be found thousands of church adherents, valuable factors in the church's development would be preserved to careers of wider usefulness and by conservation of their energies serve an urgent need. Twenty years' experience in the provinces attests the feasibility of the plan, and recent successful attempts in the states warrant its adoption here. The university-college affiliation scheme is no longer an experiment but an established fact. Nor is it wholly a question of the future of either the academy or the small college. Some of these must and will continue to render valuable service. But if the churches are to have any part in the higher education of their young people, they must follow them to the state and other large non-sectarian universities.

The rapid development of the sciences and technical arts may yet so tax the resources of these larger universities that the smaller associated colleges will become the homes of the humanities and not the dispensers of religious education only.

Another possible remedy is federation. In many instances separate institutions are located in close proximity, but still maintain separate existence. Safety rests in union. Any business man could draw up articles of agreement according justice to all concerned. Approximations may be found in Cleveland or Berea, Ohio, or Jacksonville, Ill., and other opportunities can be found.

Another field for the college is to be found in the changing character of our population. Statistics show that whereas twenty-five years back western Europe sent us 87 per cent. of our immigrants and southern and eastern Europe and Asiatic Turkey 13 per cent., in 1905 the figures were nearly reversed, northern Europe sending us only 21.7 per cent. and the other nations mentioned above 79.9 per cent. That is to say, the nationalities bringing with them the highest type of social and civic life and therefore most readily assimilating with us are rapidly falling off in numbers, and the peoples most un-American, most difficult to merge into our national life, the hardest to control, are overwhelmingly increasing. Our social system needs centers of culture that shall leaven the changing order, and here is a legitimate function for our colleges, a far better service than the present mad race after university ways, and impossible attempts at engineering and other professional schools. The resources and possibilities of university extension have not yet been touched and no surer road to public sympathy and to useful service can be found. Thousands of worthy and capable persons, too, born and bred on American soil, to whom privileges are otherwise denied, would enjoy and appreciate such opportunities conferred, and society would experience a general toning up. If such an institution be located in a large center, there are the benefits of the night school for hundreds of people to whom daily bread is an ever-present problem. Here too are to be found the hordes of newly arrived foreigners, the most dependent and helpless of the lot, whose use of the ballot is a menace to good order unless that right is based on intelligent appreciation of the duties of American citizenship. The adoption into a university group of an institution devoted to such work would be a valuable acquisition, and, for any decadent college, an exchange of humiliating weakness for an honorable mission.

There is another class of citizens, too little considered but today rising to power, namely the farmers. The rural districts are at present in a state of distraction. Culture has invaded the country, the people have tasted, have caught the vision. Free mail delivery, interurban railroads, telephones, magazines, and daily papers, improved farm machinery, and the elements of the modern home have all come to the farmer who is no longer the man with the hoe but an up-to-date professional man, possessed of an independence enjoyed by no others. On the other hand the country has been invaded by a class of immigrants, who are still unlettered in our ways but honest seekers after homes, who in a few years can put native Americans to shame in point of thrift and achievement. Rural people not only need advantages, they want them and are willing to pay the price for them. We need a system of education, a modified extension of the present agricultural college, a cross between the agricultural school and the arts college, which in addition to professional work shall provide a culture adapted to the clients served. Some of our colleges would do well to abandon their present utopian attempts at the stock university curriculum and devote themselves to this problem. The presence among us of such schools would in time create a sentiment in favor of country life, dignify the calling, and open young people's eyes to possibilities before them. Today we practically teach young people that education is a way of escape from the farm. With the help of our state universities and our Department of Agriculture, a tumble-down college could thus be built up into a potent agency in any community. The farmer is the foundation of our civilization and there is no shorter way to the betterment of our civic life than by the toning up of the farmer and his profession. The day of wasteful use of natural resources is about passed. The farmer now finds himself caught in the pinch of competition, and like others needs scientific training to enable him to conserve and make full use of his energies.

There is need also of junior colleges. We are either asking too much or not enough in education. The high school falls short of the needs of the man who is to enter life at once, and further, there is a something about college life that the high school cannot give. On the other hand it is a waste of energy to tax the university with elementary work. There could and should be a division of labor. The university could and will some time be compelled to lop off work below junior grade and leave this field to junior colleges. The last two years of our present college course could be passed up to the university and conducted in connection with advanced university work. The college would thus stand for culture, the university for vocation also. The raw recruit would not then be brought into touch with the bewildering craze for specialties nor would the student lose time in getting to his professional career.

A form of discipline possible for the small college and of infinite value in the training of youth is that afforded by the military school. The abnormal development of modern athletics and the transformation of college sports into advertising media call for careful consideration. Nor is there better physical preparation for the exactions of modern life, or better civic training. Aside from the need of a trained citizen soldiery, we Americans, whether home-bred or foreign-born, are sorely in need of the lessons of obedience, subjection to authority, and rational physical culture, all of which are essential features in military training.

There is need also of a limited number of boys' and girls' schools, which if properly equipped and conducted like the Exeter Academies, for example, would enjoy prestige and favor.

The college also should be a more dynamic factor in the section in which it is located. Too frequently the college must call its sons and daughters from afar, and alumni removed to a distance become involved in other interests and lose touch with their *alma mater*. Helpful would be a plan whereby graduates moving into the region of another college, might if they desired and the colleges concerned assented, transfer their relation and thus by adoption become, *ad eundem gradum*, alumni of another school. College diplomas like church certificates might thus become transferable, men and women could be kept alive intellectually by vital connection with an institution near enough to be practically useful, and the college would become not an annual reminder but an abiding influence.

Whatever plan may in each case become the way of escape, the crisis of the college must be squarely faced. There is a crying need for better men in the faculties, teachers who are students, scholars, investigators, diligent and keenly alive to the progress of the world about them. There is constant need for libraries and equipment that students may not toward the close of their college career be rudely awakened to the experience of having been deceived by false appearances. There is need of adaptation to the changing order, a recognition of the demand not for bigger schools but for better schools and for more effective training. There is need, finally, that the college be no longer content to touch civic and social life at isolated points but strive rather to become more and more like leaven, a part of the public life silently but surely and constantly molding and transforming it.

DEPARTMENT OF NORMAL SCHOOLS

SECRETARY'S MINUTES

OFFICERS

President—Augustus O. Thomas, president, State Normal School, Kearney, Neb.
Vice-President—Morris E. Dailey, president, State Normal School, San José, Cal.
Secretary—Henry G. Williams, dean of State Normal College, Ohio University, Athens, Ohio.

FIRST SESSION.—Wednesday Morning, July 1, 1908

The Department of Normal Schools met in the Second Presbyterian Church, Cleveland, Ohio, at 9:30 A.M., and was called to order by the President, Augustus O. Thomas. President Thomas read an address on "The Status of the Normal School in Education."

President H. H. Seerley, of the State Normal School, Cedar Falls, Iowa, read a paper on "Industrial Arts in Normal Schools."

The question was further discussed by E. E. Balcomb, state supervisor of industrial education, Okla., and D. B. Johnson, president of the Winthrop Normal and Industrial College, Rock Hill, S. C.

A paper on "What Is an Ideal Course for a Normal School," presented by President E. Oram Lyte, of Millersville, Pa., was read in the absence of the author by Abram S. Longenecker.

The subject was discussed by R. N. Roark, president of the State Normal School, Richmond, Ky., and G. W. Nash, president of the State Normal and Industrial School, Aberdeen, S. D.

The President appointed the following Committee on Nominations:

John R. Kirk, president, State Normal School, Kirksville, Mo.
R. N. Roark, president, State Normal School, Richmond, Ky.
Theo. B. Noss, president, State Normal School, California, Pa.

SECOND SESSION.—Thursday Afternoon, July 2

J. A. H. Keith, president of the State Normal School, Oshkosh, Wis., presented a paper on the subject, "What Relation Should the Head of Theoretical and Scientific Education Sustain to the Practice School?" The subject was discussed by Joseph H. Hill, president of the State Normal School, Emporia, Kan., and John E. McGilvrey, principal of the Cleveland Normal School, Cleveland, Ohio.

Lewis H. Jones, president of the State Normal College, Ypsilanti, Mich., read a paper on "The Relative Values of Observation and Practice Teaching to the Student Preparing to Teach." Discussion was led by J. F. Hosic, head of the Department of English, Chicago Normal School, and J. W. Crabtree, president of the State Normal School, Peru, Neb.

Z. X. Snyder, president of the State Normal School, Greeley, Colo., presented the report of a special committee appointed in 1904 on "A Statement of Policy Regarding the Preparation and Qualification of Teachers of Elementary and High Schools." President Snyder explained each of the eight resolutions presented and was followed by David Felmley, president of the State Normal University, Normal, Ill., who discussed at some length resolutions 1, 2, and 6. The resolutions were further discussed by Francis J. Cheney, principal of the State Normal School, Cortland, N. Y.; J. A. H. Keith, president of the State Normal School, Oshkosh, Wis.; John R. Kirk, president of the State Normal School, Kirksville, Mo.; Joseph H. Hill, president of the State Normal School, Emporia, Kan.;

Albert Salisbury, president of the State Normal School, Whitewater, Wis.; John W. Cook, president of the Northern Illinois State Normal School, DeKalb, Ill.; David Felmley president of the State Normal University, Normal, Ill.

President Snyder inquired concerning the status of the Burkett and Pollard bills, together with the new Davis bill, now pending before Congress, and suggested that a committee be appointed to represent the Normal School Department of the National Education Association, in furthering the interests of the Normal Schools in Federal Legislation A motion was made and carried to make the special committee appointed in Chicago in 1907, on "Agriculture, Manual Training, and Home Economics," the standing committee of this Department, and that said committee be instructed to keep this Department informed on the progress of the above-named bills. The Secretary was instructed to notify the committee, of which President Homer H. Seerley is chairman, of its new relationship to this Department.

The report of the Committee on Nominations was made as follows:

For *President*, Henry G. Williams, dean of the State Normal College, Athens, Ohio.
For *Vice-President*, D. B. Johnson, president, Winthrop Normal and Industrial College, Rock Hill, S. C.
For *Secretary*, Miss Louise Hannum, dean of girls, and head of English department, State Normal School, Greeley, Colo.

The report of committee was adopted and the secretary was instructed to cast the ballot of the department for the officers nominated, after which the persons named in the report were declared elected.

The department then adjourned.

HENRY G. WILLIAMS, *Secretary*

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

THE STATUS OF THE NORMAL SCHOOL IN EDUCATION

A. O. THOMAS, PRESIDENT OF THE STATE NORMAL SCHOOL, KEARNEY, NEB., AND PRESIDENT OF THE DEPARTMENT

I am aware that this subject, in all of its phases, has formed a fruitful field for papers and discussions before this department, and for special reports before the National Council of Education and the General Association; but it is still fruitful.

A careful study of the National Education Association reports is fraught with profit, and it shall be my aim to review in some measure the points of difference and the points of agreement found therein. I shall also hope to present some of the conclusions that may be reached upon the subject. Upon the points of agreement this department should unite its energies and seek to promote to the fullest extent. Upon the points where we disagree, we should come together as rapidly as possible, and, as our ideas crystallize, seek to bind them into our general policy, that we may have in our advancement the co-operation of every member of our department and of every normal school in the United States.

When the National Educational Association met at Cleveland in 1870, when the American Normal School Association became the Department of

Normal Schools of the National Educational Association, there were but thirty-nine public normal schools in the United States. At the present time almost every state in the Union is well supplied with normal schools ranging all the way from one to thirteen, as in Pennsylvania. Today Pennsylvania supports one-third as many state institutions for the preparation of teachers as there were then in the whole United States. The general plan and purpose of these schools has remained fixed and constant after the first experiment. The total of all the appropriations in 1870 was $504,861.00. After the first schools were established at Lexington and Albany, the establishment was as follows: 1844–1850, 3 schools; 1850–1860, 5; 1860–1870, 25; 1870–1880, 26; 1880–1890, 19; 1890–1900, 22. Thus it is observed that the establishment of these schools was rapid, until the states are generally supplied. At the present time there are one hundred eighty-one public normal schools in the United States. But this does not indicate the whole growth of the normal idea. These schools waxed great; they increase in efficiency and size year by year, but such development did not come without great effort. In 1906 the 181 normal schools drew an appropriation, for maintenance, of $4,643,365.00, with $1,549,906.00 for additional buildings and equipment, making a total public appropriation of $6,193,271.00. The value of the grounds, buildings, and equipments at that time amounted to $31,738,192.00. All of which goes to show the confidence the people of today impose in these professional schools. There must have been opportunity for a careful test of trained teachers in actual service. There are none of us who have been long engaged in normal-school work who have not inquired as to the merit of normal-educated teachers compared with teachers who have made themselves, or have received their education in purely academic schools. We find from those who have observed, that teachers educated in normal schools outrank the other classes. In fact, we know from our own personal experience what large demand there is for teachers with careful preparation in our professional schools. Letters from boards of education and superintendents bear out this statement. In many of the states laws are already enacted making it compulsory for teachers to have normal training. This is true in our own state. Many boards of education will not employ teachers who lack such preparation; this goes to prove that the normal schools have won for themselves an important position in our educational system.

It is not the purpose of the normal school to make followers, to curb individuality. It is its purpose to make leaders, to cultivate individuality. It is not its mission to lay specific plans and specifications of instruction, but to place in the teacher's hands the instruments of discovery and invention, to create the power to lead the way to discover new devices and new methods, and to give her an inspiration and a high regard for the honor and the importance of her profession. The true normal school brings this opportunity to all its students. They can get it from no other source. The academic schools do not possess it; the teacher who simply goes forth into the profession from purely academic schools, "to find herself," will search long and diligently before she reaches the true spirit of the teacher.

In the organization of the normal school, two distinct departments arose—the one referring to the academic side and the other to the professional. These two departments were the bugbear of normal-school advocates during the entire history of normal schools. It is the same problem that arises today in the minds of many in regard to the preparation of secondary teachers. A large number of normal-school men of high rank hold to the side that the normal school should deal largely with the professional and with the common branches. There are many others who hold that it is necessary to carry the pupils on into the realms of higher education to give them a thorough understanding not only of the branches they expect to teach, but of the branches that have direct bearing upon those branches. President, John W. Cook, of the Northern Illinois Normal School, according to his expression in the *Proceedings* of the National Education Association, 1907, appears to hold to the former idea:

> My conclusion, therefore, is that the normal school is not well adapted to the work of the college, and to the extent that it attempts it there will be a falling-off in the quality of the work along professional lines which it was especially organized to do if it was sincere in the selection of its name. There will not be that unity of sentiment, that enthusiastic devotion to the study of childhood, that open-mindedness with regard to the course of study, that willingness and desire to submit the methods of the class room to the test of the most rigorous criticism in the light that has been thrown upon teaching by the sciences that relate to the correlated life of body and mind, that ought to be found in a teachers' seminary.

Speaking of an ambition to develop the academic side in order to acquire standing, State Superintendent D. L. Kiehle, of Minnesota, says in an article in *Education* as early as 1883:

> The result in this case has been that normal schools have lost their freshness and vigor. Books are studied instead of things and laws; words are recited but no ideas or judgment are expressed. Pupils may become scholars but not teachers. An ambition may be fostered to learn a science or practice an art, but not to teach school. In truth, the school falls into the common rank of academies and high schools.

He also states further:

> They will show a continual tendency to ally themselves with higher education and neglect the elementary; they will aspire to a good name for the higher academic, rather than to the self-sacrificing work of promoting primary instruction by better methods and more thoroughly trained teachers.

Again quoting from President John W. Cook of Northern Illinois Normal School in a paper read last year:

> If this is a correct view of the function of the normal school, the constant and insistent preoccupation of everyone connected with the management of the institution will not be general or special scholarship of an academic sort, but will be special scholarship relating to the teaching art. Anything, then, that tends to minimize the main interest of the school, or what should be its main interest, must be regarded as hostile to the fundamental purpose of the institution. Where there is a strong accentuation of the academic idea and a rich development of it at the expense of the professional idea, it ought not to call itself a normal

school, but an academy or college with a pedagogical annex. I do not forget that I shall be accused of thinking more of an equipment of method than of an equipment of subject matter to which to apply it. Such an accusation would be unjust.

Relative to the growing interest in academic subjects, I wish to quote from President S. S. Parr, of Indiana, as early as 1888:

> If the normal school, when it develops out of its present immature form into that of a completed institution, realizes its purpose, it must have a chair for each academic subject of which its students study the method; and have chairs of educational psychology, general methods, the history of education, and the philosophy of training; the whole to be supplemented by a practice school involving all grades of work, under the direction of skillful specialists who become critic teachers, interpreters of the underlying philosophy of training, and directors of the work.

Quoting a pertinent expression of Principal E. Oram Lyte, of Millersville, Pa., *Proceedings* of 1895:

> The course in a medical college is not limited to the mere discussion of how to practice medicine, followed by practice in a hospital. It embraces those studies which lead up to the practice of medicine, or which bear upon the practice, including the whole science of materia medica. Nor is the training at a military school wholly upon the application of the principles of war, with an occasional dress parade or sham battle. A rigid course of mathematical and scientific instruction is insisted upon, in order that the young lieutenant may be able, not only to point his gun according to the laws governing the velocity and drift of projectiles, but also to understand these laws and, if necessary, to derive them. Is the normal school to differ from all other technical schools? Is it not to be allowed to deal with the subjects that bear upon the teacher's work, and not alone with the way in which these subjects are to be used?

In making a strong plea for the emphasis for the academic side of our normal schools, President John R. Kirk, in last year's association, said:

> We are not likely to make progress, excepting in spots, until some parts of our educational creed are reconstructed. One of them, innocently promulgated from the circles of higher education, is to the effect that a half-educated person is good enough to teach children up to and including the last day in the elementary school, while a fully educated person is needed to take charge of the child on the next day in school, i.e., the first day in the high school. By this tenet the typical normal-school graduate with insufficient academic attainments and much dogma stands for the half-educated person, while the university graduate crammed and surfeited with ill-digested facts and theories acquired in college lecture rooms represents the fully educated person. This creed is convenient and practical. It is more easily lived up to than a better creed would be. It is damaging to all education.

In order to fully appreciate the fact that the normal schools are reaching up into the academic field, it is necessary only to examine the catalogs of the leading normal schools of the country. We find these schools not only covering the entire field of secondary education, but reaching up into the domain of the college from two to four years. In practically all of the twelve catalogs recently examined, was found considerable work in courses usually conceded to the college and university.

To my mind the extension of all normal-school courses to embrace a substantial academic education is as inevitable as time. I quote from a committee report of 1894, bearing the signatures of Charles DeGarmo, D. L.

Kiehle, G. Stanley Hall, Richard G. Boone, Nicholas Murray Butler, and J. M. Green, as follows:

> Your committee are firmly of the opinion, however, that the possibilities of the normal school, even in its present field of activity, are not yet fully realized. They are convinced that the "one-study"—"one-term" principle is a wrong one, leading to superficial knowledge in every department of study. They think that able, mature minds are often kept "marking time" in direct primary study of the common branches, when they should be examining these subjects reflectively in the light of more advanced knowledge.

The Indiana legislature recently passed a law requiring the state normal school at Terre Haute to extend the course of study to cover four full years, giving the right to confer professional degrees. The legislature of New Jersey passed a similar law in order that the normal school might prepare teachers for first-class high schools. Iowa, Kansas, Missouri, and Colorado are already covering this ground, and placing their product in the best high schools of their respective states. The presidents of the state normal schools of Wisconsin in February decided by a unanimous vote to recommend to the Board of Regents: first, that the course of study for the state normal schools of Wisconsin be extended so as to cover four years above the twelfth grade; second, that one year be added to the present two-year course at the beginning of this school year and one at the beginning of the year following, and also that the degree of Bachelor of Education be conferred upon those who complete the full four-year course. The Normal School Presidents' Council for Mississippi and Missouri Valley schools in the meeting May 8 of the current year, unanimously agreed to recommend to all the states represented in the council: first, that the entrance requirements to the normal schools be the same as college-entrance requirements for freshman year; second, that the normal-school course cover four years work instead of two years as at present; third, that the degree of Bachelor of Education be conferred upon those who complete the full four years.

On the other hand, to show that the principles of the normal school are being recognized by all departments of education as a powerful factor in the preparation of teachers for instruction in all departments of education, I quote from the Committee of Seventeen, reporting at the 1907 meeting to the Department of Secondary Education, which is a complete endorsement of such technical preparation:

> I. That the academic preparation include the following elements: A. A detailed and specialized study of the subjects to be taught. The program of studies selected by each student should include work in subjects outside of those in which he is making special preparation, sufficient to give some insight into the different fields of knowledge and to avoid the dangers of over-specialization.
>
> II. That definite study be given to each of the following subjects, either in separate courses or in such combinations as convenience or necessity demands:
>
> A. History of Education.
>
> 1. History of general education.
> 2. History of secondary education

III. That opportunity for observation and practice-teaching with secondary pupils be given.

The committee recognizes the difficulties involved in this recommendation, but believes that they are not insurmountable. Each of the following plans has proved successful in some instances:

A. The maintenance of a school of secondary school grade that may be used for observation and practice.

B. Affiliation with public or private high schools so situated geographically that practice-teaching can be done without interfering with the other work of the college course.

It is sometimes held that normal schools do not hold the respect of colleges and universities because those who compose the faculties do not hold degrees and their productive scholarship especially is limited.

I quote the following from Charles C. Ramsay in *Education*, December, 1896:

> As a rule, they have neither originated nor executed important movements in education; nor have their instructors, with one or two exceptions, written the epoch-making books for either teachers or pupils.

This criticism has been often made of the normal schools, and yet, in examining the faculty lists from a large number of normal schools in the United States, we now find that the faculties are composed of men and women not only of strong professional but of strong academic training. In fact the majority of those men and women instructing in the normal schools today bear higher degrees: a large number of Ph.D.'s as well as A.M.'s and B.Sc.'s. Examining the catalogs of a number of schools, we find out of two hundred twenty-one professors, thirty-four bear Doctor's degrees; fifty, Master's degrees; fifty-five, Bachelor's degrees; besides a large number of special degrees in music, education, etc.

With the passing of the old apprenticeship idea in mechanics, in law, and in medicine, and the founding of trade and technical schools, has come the professional school of education. The rapid development of our country and the opportunity for business enterprise have produced a practical turn to all our affairs. We demand skilled laborers, finished lawyers, competent physicians, and educated teachers. The hand that touches the strings of industry must produce melodious sounds. There is no patience with the rude thrumming of the novice.

Ever since Samuel Hall established his school for teachers at Concord, Vermont, the normal-school idea has maintained a fixed and steadfast purpose, altho two plans have existed. One holds to the idea that only professional subjects should be considered. The advocates of this plan held strictly to the view that the "how" was the important feature of the normal school. The other, while believing in the same professional, saw also a need for strong academic departments. They could see no conflict between the two, but that the one was beneficial to the other. This last idea has grown rapidly until it is now common to find strong academic departments supplementing the professional. None of the spirit of the professional departments seems to be lost in the higher academic. Our normal schools have no organic relation with the public-school system though they direct largely the organization and method of the whole public-school system. They are over and above these schools in that they stand for advancement, the pioneers in education and the censors of methods. They are beginning to require higher standards of scholarship for entrance requirements, and may be classed as institutions of higher instruction. The students are almost of university age and thoroughly capable of carrying strong academic courses. In many cases these schools receive their supply of students direct from the high schools, and send their product on into the university without loss of time to the student or detriment to the university.

INDUSTRIAL ARTS IN NORMAL SCHOOLS

HOMER H. SEERLEY, PRESIDENT, STATE NORMAL SCHOOL, CEDAR FALLS, IOWA

The industrial trend.—The past quarter of a century has witnessed a remarkable change in the motive and the plan of public education thru the rise, the development, and the acceptance of the industrial arts as real factors in civilization. The province of American education has thus been greatly enlarged and this expansion has required the service of every institution that has a hand in the educating and the training of men and women for the vocations and activities of life. The influence of such a change of view has remodeled higher education thru the founding of technical colleges and has also compelled the universities to recognize the fact that there are other branches of study than those historically adopted for the liberal education of a man. This attitude of the public mind has limited the old curriculum to a small part of a student's time and at the same time has opened up to study much opportunity for acquaintance with the commercial, technical and practical studies that are related to careers in the worlds of business, manufactures and commerce. The same influence has undertaken also the reorganization of the entire public-school curriculum, compelling large attention to the abstruse problems of the needs of the time—that of educating and training children not only for culture but also for utility. These tests of modern thought have been made in many places and such satisfactory results have been obtained that public sentiment uniformly concludes that education thru the public schools, in mechanic arts, home economics, and agriculture, must become not only possible but also actual and universal.

The normal-school province.—In the midst of these activities and enterprises the normal schools and the old-time standard colleges find themselves to be the most conservative public educational institutions in the country. The normal schools are recognized as institutions in which preparation for a public career takes into consideration the actual demand that is made upon the teacher who must undertake the work required by the public schools. The normal schools do not feel free to prepare products for a market that they think may not yet exist, and they usually wait until a dissatisfied public sentiment expresses itself by changes in the laws that govern the requirements for teachers' certificates before they deem it important to recognize public need and adapt the work offered to these more modern developments. This fact in organization and in management has made these schools more exemplars of methods and more representatives of peculiar philosophies and pedagogies than real active factors in the developing and forwarding of public educational interests and objects thru improvements and progress. Such a condition grows out of a necessity that comes from training for the public service and in trying to furnish what is inferred the public wants. As a consequence the normal schools have been notably indecisive as to the expansion of their province to keep up with progress and have not kept step with the developments that have come to the public schools. Otherwise all such teachers' schools would now be training high-school teachers of all kinds and would be training, also, all kinds of special teachers for directing the work in music, manual training, domestic science, physical training, art, and agriculture, as such lines are as specifically within their province as is the training of kindergartens, primary or grade teachers.

The demand for teachers.—The total requirements in these lines are such that the normal schools can easily and successfully comply with all of them and they must not fail to expand their activities so as to comply fully with the broad needs of the public service. The education of public-school teachers is a business of the widest scope, of the greatest utility, and of the largest comprehensiveness and the province outlined should not be confined to the narrow limits so generally assumed by this class of educational institutions. Normal-school management in every state must take a broader view of what work is needed to be done for the benefit of the public schools, and there should be no hesitation to show courage and formulate plans and policies to meet these needs, placing these facts before the great public in order to obtain the support for the work that is so necessary. It is evident that wherever this has been faithfully and determinedly done, such teacher-schools have been honored by public confidence, granted abundant encouragement and support, while being at the same time commended for their great helpfulness to public education. The supply of such teachers is always exhausted, the demand for such instruction is constantly expanding, the progress of the public schools has been much hindered by the constant failure of the normal school fully to recognize its ability to help in these important and permanent lines, and civilization has been greatly delayed by the absolute lack of suitable interested workers to lead in the much-needed progress.

The atmosphere of teaching.—It was recognized long since that the segregation of teachers from other students during their period of training was of decided benefit to them and their future career. Normal schools have these important relations and are able to have an atmosphere that is conducive to the true spirit of teaching, to the main purpose of developing the teaching conscience and to the constant insuring of a necessary appreciation of the value and greatness of a teaching career. This atmosphere is an impossibility where individualism and commercialism are as supreme as now regularly exists in most higher institutions of learning. The normal schools should accept their privilege and should train for personal sacrifice and for helpful service to mankind to a degree and to an extent not now deemed esssential. These humane considerations in an education and a training that is to mean the placing of a personality in an attitude of serving the public for the public welfare must not be overlooked. The public school is in reality the greatest educational field of the present age, even if not the most desirable, because of the greatness of its problems and the uncertainties of its tenure, and it requires, therefore, that great people, with great ideas of life, with great conceptions of possibility in training and with great faith in the salvability of men thru education, be trained for its teachers and its managers

The normal-school opportunity.—This great work of teaching the industrial arts is not to be postponed. The activities of civilization that are associated with the success and the progress of mankind are necessary to the happiness and the welfare of every child in this country. The normal schools have here an opportunity to be great in influence and to do good in multitudes of directions that have not been known in a century past. The expansion of commerce, the upbuilding of industries, the enlargement of possibilities for service to civilization, the growth of society in all directions, the demand for increased capability in scholarship and training are all startling in their magnitude and importance. The high schools are developing in courses and in numbers at a rate which is nearly incomprehensible; the demand for secondary and special teachers of all kinds is unprecedented; the great public recognizes the magnitude of the problems that are at issue in order to have public education effective and economical; while the work is lagging because of unprepared leadership. The normal schools are here and are well organized. They possess a right attitude and give a proper atmosphere to the training needed. They have the vantage of long and successful experience that can not be forgotten. They are educational agencies that are more universal and more numerous than any other kind of public organized effort for the improvement of the common schools. They possess excellent standards and they can enforce them without fear or favor. They are able to prepare the best high-school teachers and the best special teachers of all kinds without delay or loss because they can restrict their courses of study and insist upon the realities of scholarship and the necessities of training. They have the sympathy and the support of the people to so large an extent that such an expansion of influence and such an increase of power will be commended and approved.

The importance to the normal school.—But, after all, the importance to the normal schools of the United States of accepting this field of educational activity cannot be overestimated. Their future influence, as well as their usefulness, depends upon their adaptability to the modern movements in educational thought and action. These schools must be institutions in touch with the education of the whole people if they are to be the factors in progress and the constructors of plans for the public good. If these schools do not accept and seek such opportunity the people will find other ways and found and organize other institutions to meet the immediate pressing needs of modern life.

DISCUSSION

E. E. Balcomb, state supervisor of industrial education, Stillwater, Okla.—I most heartily indorse all that Dr. Seerley has said. I have but two regrets: One is that more people could not have heard the paper, and the other is that public sentiment has not, long ago, demanded that education, thru mechanic arts, home economics, and agriculture be actual and universal. As most of you are aware, those of us who live in the new state of Oklahoma have endeavored so far as legislation is concerned to make this kind of education real and actual. We first had it put into the constitution and then our first legislature made every effort to enact such laws as would make this clause of the constitution operative. The trend of public opinion is shown by the following extract from our law:

"For the purpose of carrying out the requirements of the state constitution relating to the teaching of the elements of agriculture, horticulture, stock feeding and domestic science in the common schools of the state, there is hereby created a state commission of agriculture and industrial education, consisting of a state superintendent of public instruction, who shall be chairman; the president of the State Board of Agriculture, and the president of the Agricultural and Mechanical College. The elementary principles of agriculture, horticulture, stock feeding, forestry, building country roads and domestic science, including the elements of economics, shall be embraced in the branches taught in all the public schools of this state receiving any part of their support from this state, and these branches shall be as thoroughly studied and taught by observation, practical exercises and the use of text and reference books, and in the same manner as are other like required branches in said public school.

"After July 1, 1909, no person shall teach and no certificate shall be granted to an applicant to teach in the public schools receiving aid from the state who has not passed a satisfactory examination in the elements of agriculture and allied branches mentioned in this act. Any teacher whose duty it is to instruct in the branches required by this act, who fails or neglects to comply with the provisions of this act, shall be discharged.

"There is hereby created the chair of agriculture for schools, who shall be a member of the faculty of the Agricultural and Mechanical College, whose duty shall be to direct and advise in all matters relating to the teachers of agriculture and allied subjects in the common schools. He shall visit the schools, the teachers' institutes, the summer normal schools and the state normal schools, advise with the teachers and officers concerned and plan such means of co-operation in the improvement of methods, appliances, the use of seeds, plants and trees as may from time to time be necessary, and shall prepare, print and distribute such leaflets and other literature as may be helpful to teachers and pupils concerning or engaging in teaching agriculture, practical and scientific subjects bearing on technical and practical agriculture and its allied branches."

These extracts from the laws enacted by the first legislature of the newest state in the union not only show the trend of public opinion in that state, but show, as it were, the culmination of public sentiment in general. Were not the citizens of the state framing their law in the light of experiments and experiences of all the other states? They are then but the reflection of the present attitude of the public on these matters of industrial education.

While the opinion of educators is somewhat divided as to the function of the state normal schools, I do not hesitate to say that I indorse the position taken by President Seerley. If the normal schools were living up to their duty in the preparation of teachers they would be preparing teachers for these manual subjects. The normal schools should abandon their hesitating, timid position and command the respect of the public by preparing the teachers so much needed in these lines for leadership. The progress of education should no longer be hindered by normally prepared teachers whose training has been so cramped by traditions that they can no longer be leaders but must be followers. Nor can the normal schools hesitate longer in the matter of preparing teachers to lead in the movement. The universities and agricultural colleges are rapidly preparing to do this work. Massachusetts about a year ago employed a man to assist the teachers in their state to do this work. Iowa also made similar provision and in many states graduates of agricultural colleges received life diplomas as teachers.

D. B. Johnson, Winthrop Normal and Industrial College, Rock Hill, S. C.—The International Committee of the Young Men's Christian Association, through its educational department, has ascertained by recent investigations that of thirteen million young men in the United States, between the ages of twenty-one and thirty-five, only 5 per cent. received any preparation in the schools for their occupations, and that of every one hundred graduates of the elementary schools only eight gained their livelihood in the professions and commercial business while the remaining ninety-two supported themselves and their families by the skill of their hands.

According to the last census, we have engaged in agricultural pursuits 10,381,765; in professional service, 1,258,538; domestic and personal service, 5,580,657; trade and transportation, 4,766,964; manufacturing, mechanic arts and mining, 7,085,309. And yet our whole educational system has aimed towards professional service, in which is engaged only about one twenty-fourth of the people in gainful occupations.

Such facts as these are bringing home to the people the inadequacy of the old system of education and leading them to see more and more clearly the truth and force of the statement made by President Roosevelt in an address delivered in May, 1907, "We shall never get the right idea of education until we definitely understand that a man may be well trained in book learning and yet, in the proper sense of the word and for all practical purposes, be utterly uneducated." The people are coming to believe that "it is more honorable and profitable to pound an anvil and make a good horseshoe than to pound a pulpit and produce a poor sermon."

In the South, before the war, the aim of all education for men was to prepare for one of the professions—law, medicine, or the ministry—and for women to prepare for shining in society. And this was the aim there, I regret to say, long after the war.

It is true that in South Carolina, the state I represent, a philanthropic citizen with prophetic vision, Dr. John De La Howe, founded an agricultural school on his farm in Abbeville District in 1796, but this school, though still in existence, never flourished on account of the conditions of admission to it and a lack of appreciation and encouragement.

The negroes on the plantations received from the experienced planter and his wife the industrial training which is now seen to be such an essential part of the education of all. The negroes were the blacksmiths, carpenters, wheelwrights, shoemakers, housekeepers, raisers of live stock, poultry, etc. And thus industrial training of the whites was placed under a ban. The war broke up the plantation industrial training of the negro and emancipated the white man rather than the black man and has opened the way for the industrial training of all the people.

The South has not been alone in its thralldom to classical learning in the schools, but it has been slower than the rest of the country in escaping from it, mainly because of its conservatism, its impoverishment by the war, and its peculiar social, industrial, and economic conditions.

I rejoice that there is now a very general awakening, North and South, to the need and importance of industrial training in the city and the country, and there is now a very general agreement that education must prepare for life's duties, whatever they may be.

The President of the United States, in a noted address to leading educators of the country, takes Industrial Education as his theme, holding that industrial training, the training which fits a man for the shop and the farm, is one of the most potent factors in national development and that real protection to American labor is to be secured by industrial training of the masses rather than by the tariff and the immigration laws.

Great capitalists and manufacturers organize the National Society for the Promotion of Industrial Education. The state of Massachusetts appoints a Commission for the Study of Industrial Education, whose reports are in general demand. Bills are introduced in the Congress of the United States for the encouragement of industrial education throughout the country and the National Council of the National Education Association appoints a Committee on Industrial Education.

As a result of all this interest and agitation the agencies for giving industrial training and the numbers receiving it have increased greatly. The report of the United States Bureau of Education for 1906 shows that in 1895 a total of 4,892 pupils, boys and girls, were attending manual and industrial schools of high-school grade in this country, and in 1906 the number had risen to 48,610.

The South feels keenly the necessity for industrial education for her people and is feeling its way toward the best methods of supplying it. Her fertile fields, rich deposits of coal and ore, great forests, and magnificent water power are yet only partially developed and utilized, and they can be properly developed and utilized only with skilled, industrially trained labor.

With this universal need and demand for industrial education there must be teachers trained for the work, and the normal schools are the best agencies for training these teachers.

There are a number of normal and industrial colleges in the South doing this kind of work.

I agree heartily with the speaker who opened this discussion that it is very important for the normal schools themselves to provide for industrial education.

If the normal schools are to continue to receive the support of the people, they must meet the needs of the people in this matter of providing teachers to give industrial training in the schools as well as in other ways.

WHAT IS AN IDEAL COURSE FOR A NORMAL SCHOOL? WHAT ACADEMIC AND WHAT PROFESSIONAL WORK SHOULD IT UNDERTAKE?

ELIPHALET ORAM LYTE, PRINCIPAL FIRST PENNSYLVANIA STATE NORMAL SCHOOL, MILLERSVILLE, PA.

The function of the state normal school is the preparation of teachers for the public schools. Teachers for higher institutions, such as colleges and universities, as a rule, assume that they need no preparation except a knowledge of the subject they desire to teach. The college professor and the university professor are still, to a greater or less extent, under the domination of the idea that all the preparation for teaching necessary is to know the subject to be taught. But the normal school recognizes the truth of the statement that teaching is something that can be learned and that often the best scholars are the poorest teachers. It is not the function of the normal school at the present time to undertake to prepare teachers for chairs in colleges and universities. Their duty is to fit teachers for elementary institutions, including schools of a grade not above that of the ordinary high school of a smaller city.

Of course I am aware that there are normal schools that offer academic courses covering the college curriculum, but I think that this fact will not invalidate the general statement that the field usually occupied by the normal school is that of preparing teachers for the public schools, including lesser grade high schools. And I know, too, that no teacher can know too much, provided he does not lose sight of the fact that the children he is expected to teach know so little. At the same time, I may be allowed to say that I regard it as unfortunate that the college idea—not the idea of higher education—dominates the high schools of so many cities and towns. Preparation to enter the classical course at college is not the best education for a young man who never goes to college. The school curriculum should be so planned that each year the boy or the girl receives the education most needed, if he or she should discontinue school at the end of the year. And this does not lead the pupil to fight Caesar's battles over again, or deliver again the orations of Cicero against Catiline. But it is the most important problem the school superintendent or principal has to solve, and it is similar to the problem which we must attempt to solve if we try to say what an ideal normal-school course should be.

Assuming these statements to be correct:

1. That it is the function of the normal school to prepare teachers for all grades of public schools from the kindergarten to and through the smaller high school.

2. That the education of a teacher at any period should be the best for him if he stops at that period, and

3. That the condition of some of our public schools makes it necessary for boards of directors or trustees to employ persons who have but little education and less training for the vocation of teaching, let us ask what preparation the teacher in the public school needs. The teacher of the public school must, of cource, know the branches he expects to teach. He must have a knowledge of grammar, geography, history, arithmetic, and other branches taught in the public schools. To know grammar so as to be able to teach it, the teacher must be familiar with good literature, and must know rhetoric and have some acquaintance with the laws of thought and thought expression. To be ready to present the subject of geography to a class of pupils, the teacher must know something of geology, zoölogy, botany, must know what people are doing, how they live, how and why cities grow and decay, and what causes the shifting of population. To be able to teach the history of our country, he must be familiar with the history of England, the history of Germany, and know something of what is included in the term general history and what may be called current history. To be able to teach arithmetic, a knowledge of geometry and algebra is absolutely necessary. Then, too, the modern teacher, the teacher who is "up-to-date," must know something of art—drawing, water color, oil, pottery—of manual training in its various forms, of domestic science and domestic art (including cooking, sewing, applied chemistry) of sanitation, of vocal music, of sociology, of an endless number of subjects bearing upon complete living and successful bread-winning.

Much of this knowledge may be called academic, yet there is a wide difference between the general, superficial, indefinite, if not inaccurate, knowledge often acquired by a graduate of the best high school, and the specific, thorough, definite, accurate knowledge that a teacher must have. This academic knowledge, which may be called the academic knowledge of the teacher, must be given by the normal school. The high-school graduate does not have it, the college graduate has grown away from it if he ever had it, and, as a rule, is unwilling to go through the drudgery required to obtain it, and if the normal school does not give it, it is not acquired. More than this, the teacher must know the child, must study as well as he can the growth of the child's nature, how a child leaves its mother's arms, passes through the kindergarten, the primary grades, and the high school. He must know something of the mind of the child and the laws of its mental growth, something of how a child is controlled, what interests it, what it cares about, and what is repulsive to it, at the various stages of its mental growth, and something of the effect knowledge has on a growing mind. He must know the principles of education, methods of teaching, how a school is managed, and be acquainted with the lives of the great teachers, and know where they failed and where they succeeded. He must be able to put into practice the best methods of imparting knowledge and of developing the mind through the acquirement of knowledge. He must know that there is a best way for a child to develop into a man, and that each child is an individual and requires individual treatment. This work, which is strictly professional, all will agree it is the function of the normal school to provide for its students.

If these statements are accepted, it will be seen that a properly equipped normal school has two distinct lines of work, which may be conveniently and correctly called academic and professional. These two phases of work are distinct, but each equally necessary.

It must be said, however, that many normal school men do not accept this statement. Many hold that a normal school is not called upon to do anything but what they call purely professional work. To this two things may be said: First, the academic work to which I have referred—the mastery of the branches to be taught, from a teacher's point of view—is really as professional in the normal school, as the careful, thorough study of anatomy and physiology is professional in a medical college, or the study of mathematics is at West Point or Annapolis. Indeed, when it is remembered that many of the branches studied are to be used by the teacher in actual teaching in the public schools, the academic study of these branches becomes in a peculiar sense a part of the prospective teacher's professional training and consequently cannot be omitted from a fully equipped normal school.

Second, I have never visited a normal school that claimed to be doing only professional work in which I did not see very elementary academic work, and I have visited some of the best and most famous normal schools in the United States, nor have I ever examined the course of study of a normal school that did not have a great deal of what is known as academic work. Indeed, I know a gentleman who has charge of a large and influential normal school, who says that the best training for a teacher, and probably about all that he needs, is to have him taught the academic branches by a superior teacher. He holds that a teacher can best learn to teach arithmetic to children by being taught arithmetic well himself. The absurdity of this statement is seen when we compare the subjects taught to an adult, and the mental processes by which he grasps these subjects, with the mental equipment and effect of a child just struggling with the elementary notions of the subject.

Again, it may be said that the two phases of the educational preparation of a teacher, the academic and the professional, should go hand in hand in his training. The academic training should always be given with the thought that the matter presented is presented to a teacher who will in time present it to learners probably as it is presented to him. The recognition and acceptance of this fact will make the academic work of the normal schools a necessary part of a teacher's professional preparation which no school whose mission is to train teachers can afford to omit.

Then, too, as soon as the academic teaching is sufficiently advanced, methods of teaching the subject should be carefully and consciously presented, and other phases of professional training, such as history of education, school management, psychology, should be given in such a way that the normal-school student should live and breathe in a progressive, normal-school atmosphere, the fundamental characteristic of which should be that of service. Every teacher in a normal school should be ready to serve others at all times, and every student should become imbued with the thought that the highest aim of the teacher is to serve others. We hear so much of the advantages of living in a college atmosphere—an atmosphere too often filled with the odor of old pipes and beer mugs, with baseball bats and college pennants, an atmosphere in which the "polar" is despised and a "man's" standing is measured by the number of "cuts" recorded against him—this is not the environment in which conscientious teachers of immature, undeveloped children of both sexes can best be trained. The progressive normal school must have a normal-school atmosphere, and it must instil into its students the high ideal of living for others. Much of its best work, therefore, will not be found in its course of study, but will be in its social environment, in its literary and musical organizations, in its Christian Associations and Temperance Unions, in its religious organizations, in all that makes a man or woman a fit model for the rapidly developing youth of our country.

It was my intention to finish this paper with a presentation of several courses of study now used by leading normal schools throughout the country, and I had considerable correspondence with Presidents Z. X. Snyder, of Greeley, Colo., John W. Cook, of DeKalb, Ill., L. C. Jones, of Ypsilanti, Mich., and W. S. Monroe, of Westfield, Mass. I also wished to present the course of study of the normal schools of the State of New York, prepared by Superintendent A. S. Downing. In addition, I am a member of a committee to revise the course of study for the Pennsylvania normal schools.

My reason for not presenting the courses here referred to is the same reason which I must offer for not presenting this paper in person—my health is in a precarious state, and my physician forbids me from doing any work that it is possible for me to avoid. I am sorry to be compelled to present this paper in an incomplete form, without being able to "work it over" as carefully as the requirements of the meeting demand, and without being able to add to it the courses of study above referred to, which would have given it a value which it painfully lacks without these courses. I am sorry, too, not to be able to enjoy this year the inspiration and good fellowship that I have participated in in the past. Whether I shall be able to meet with you in the future is a problem for the future.

DISCUSSION

R. N. Roark, president, State Normal School, Richmond, Ky.—Whether this question is approached from the side of local conditions or from the side of theoretical ideals, the result will be practically the same. The sole function of a state normal school anywhere is to prepare teachers for trained service in the public schools. It is no part of a state normal school's business to prepare for college or to offer courses leading to academic degrees. The normal school should prepare teachers for all grades of work in the public schools.

It is entirely safe to say that in no state can the normal school afford to assume that its students have the sort of knowledge of subject-matter that they should have in order to profit best by the work of the normal school. In the school of which I have charge we started from the assumption that the legislature of Kentucky created normal schools in 1906 for the benefit of the public schools of the state, and, basing our work upon the further assumption that the schools which most need help and have the best right to demand help are the schools of a majority of the people—the rural schools—we put the curriculum in reach of students who expect to teach in these rural schools. Academic work and professional work are carried on concurrently. Of the academic work nothing need be said except that two aims are kept constantly in view in every class; namely: thoroness of scholarship in whatever branch is studied, and the constant illustrating of the best methodology of the subject by the instructor in handling his class. Every normal-school man knows that a teacher will teach as he has been taught rather than as he has been theorized upon. By safeguarding this point, we escape the anomaly of having an instructor in arithmetic contravening the teachings of the professor of method.

The academic work is arranged to reach from the needs of the rural school teachers for a thoro grounding in the elementary subjects to the needs of those who are preparing for high-school departmental work, principalships and superintendencies. The requirements of schools in the territory served by the State Normal are met on the academic side of the curriculum. If a school board asks for a principal who can teach Virgil or second-year German or first-year French or trigonometry, we propose to meet the demand. As a rule, we do not find such preparation as our students may have made in high schools quite adequate for our requirements in thoroness of view point. A reciting knowledge is so different from a teaching knowledge. No matter what academic credits are brought by a student, therefore, we require at least one ten-weeks' term of work with us in some division of the subject-matter of each branch. This term's work frequently reveals a startling weakness in academic soundness of scholarship in even the elementary subjects. Since the efficiency of a teacher is more often tested by his knowledge of elementary subjects than by any other, we are at much pains to secure in our students soundness of elementary scholarship.

On the professional side, our work consists of two elements: one theoretical and fundamental, presenting the science and philosophy of teaching, and the other the practical side, designed to give some training in the art of managing and teaching a school. The distinctively professional side of our work, therefore, consists of a certain amount of general pedagogy giving, as the name indicates, a general view of school economy and teaching method. This is followed by a fundamental course in psychology as applied to education. But little work is done in psychology except as it is applied to education. Questions in speculative psychology are raised with the students, and library references are given bearing upon them which may be used by the students according to interest and opportunity, but it is kept constantly in mind that speculative psychology has little or nothing to do with teaching. Following the work in psychology, and based upon it, is a certain amount of general method and following this two terms or more of specialized methodology, ranging from primary methods to high-school methods. Following the work in method are two terms of educational economy which subject covers all the ground of the old-time school management and a good deal more. One subject which receives special emphasis in the work in educational economy is graded-school organization and administration, designed to prepare students to take hold of a village school and organize it into a three- or four-room graded school and conduct it successfully, staying with it until it grows into a fully equipped and fully officered school of twelve or more teachers.

On the practical or art side of the teacher's work we require a number of terms of observation in the model school, between which and a practice school there is a sharp distinction. In the model school the pupil observes the method and management of the teacher in charge and discusses these matters with the teacher in classes especially organized for that purpose. After the student is well grounded in the theory, in the philosophy and science of the teacher's work, and has observed the best illustrations that he can give of the practical working out of these by expert teachers, he is required to do a certain amount of practice-teaching under the direction of critic teachers. This aspect of our work is not yet fully worked out because our school is only a little over a year old and we have not yet the facilities for practice work that we expect to have within a year.

In our work it is assumed that the successful teacher must not only know the subject-matter of his branches and the methodology of their teaching, but must bring to bear all the general culture possible. This culture of the teacher is provided for by a study of history, of literature, of sociology, and the history of education. This last-named subject is placed toward the end of the curriculum for the reason that it is believed no teacher can fully understand the causes and moods of change and growth along educational lines, by an individual or a people, until he knows somewhat of the philosophy and science of education and general history of nations. Not only are daily recitations required in certain terms in the subjects just named, but the student is expected to do much collateral and illustrative reading in the library.

G. W. NASH, president of the State Normal School, Aberdeen, S. D.—A Pennsylvanian or a New Yorker might have his normal course of two, three, or four years follow the high-school course of four years with the latter a prerequisite to the former; while the dweller in a less developed state might have his course of the same length, but so constructed as to follow immediately the common-school work usually comprehended in the eight grades. The striking difference in these extreme courses is due in great part to the vastly different conditions which prevail in the sections where they operate.

To my mind, the person who assumes to teach in the grades below the high school should continue his school course at least three years beyond the eighth grade. The higher work should be largely academic, but should have in its make-up enough of professional study to show plainly that it is intended for teachers. If this were counted a minimum of preparation, a great body of budding pedagogues would be compelled to undertake the work, and the pressing demand for better trained teachers in the country schools would thus be met. The rural population of the United States still outnumbers the urban population and public education in our country districts should no longer be so sadly inferior to that of our cities.

My ideal course for normal schools would begin immediately above the common-school grades, with an elementary division covering a period of three or four years—four years in case introductory reviews in such branches as arithmetic, grammar, geography, and American history were necessary; otherwise, three years. Above the elementary part of the course, I should provide an intermediate division of two years, this more heavily loaded with professional subjects and designed to fit teachers for important grade positions, ward principalships, and minor supervisorships. A third, or advanced division, would consist of at least a single year, and would prepare for high-school places, superintendencies, and school room positions carrying the heavier responsibilities.

To those completing the elementary division I should have the state award a teacher's certificate limited to, say, three years; to those finishing the intermediate division, the diploma of the school and a five-year certificate; and to those completing the advanced division, the diploma of the school and a life certificate. The plan could be strengthened and inefficient teachers could be forced into the normal schools, if the minimum requirements for teachers' certificates secured on examination were made to parallel the elementary division of the course. Personally, I should not be averse to an expansion of the advanced division sufficient to command the baccalaureate degree, but should grant the degree in no case for less than four years' work in addition to that offered in the best high-school courses of the land.

My course would permit of very few electives, but would make possible specialization in English, German, French, Latin, mathematics, history, science, or industrial work. One completing it and taking, for instance, the six years' work in Latin would be as well equipped as the average college graduate to teach his specialty. I should insist that graduates of the complete course be properly recognized and awarded teaching positions in the high schools on an equal footing with the college men and women who have in the recent past assumed to monopolize such places.

In line with these ideas I suggest the following outline of a normal-school course of study. This contemplates five fifty-minute recitations weekly unless otherwise indicated.

NORMAL SCHOOL COURSE OF STUDY

Elementary—Leading to a Three-Year State Certificate

FIRST YEAR

First Semester	*Second Semester*
English	English
Greek and Roman History	Freehand Drawing
Algebra	Algebra
One of:	One of:
Latin	Latin
Civics	Physiography
Industrial Work	Industrial Work

SECOND YEAR

English	English
Plane Geometry	Plane Geometry
Sight Singing	Mediaeval and Modern History
Art of Teaching I	School Management I
One of:	One of:
Latin	Latin
German	German
Zoölogy	Botany
Industrial Work	Industrial Work

THIRD YEAR

First Semester	*Second Semester*
Psychology	Scientific Agriculture
English History	American History
Advanced Arithmetic	Advanced Grammar
One of:	One of:
English	English
Latin	Latin
German	German
French	French
Physics	Physics
Industrial Work	Industrial Work

ADVANCED—LEADING TO A FIVE-YEAR STATE CERTIFICATE.

FOURTH YEAR

Mathematical Geography	History and Philosophy of Education
Teachers' Manual Training	Teachers' Manual Training
Methods and Observation 3	Methods and Observation 3
Child Study 2	School Law 2
Reading 2	Reading 2
One of:	One of:
English	English
Latin	Latin
German	German
French	French
Solid Geometry	Advanced Algebra
Chemistry	Chemistry
Industrial Work	Industrial Work

FIFTH YEAR

Professional Reviews in Grammar and Arithmetic	Professional Reviews in Geography and Physiology
Public Speaking 2	Public Speaking 2
Practice Teaching	Practice Teaching
Two of:	Two of:
English	English
Latin	Latin
German	German
French	French
Constitutional History	Modern European History
Trigonometry	Analytic Geometry
Vertebrate Zoölogy	Plant Histology
Advanced Physics	Advanced Physics
Industrial Work	Industrial Work

POST-GRADUATE—LEADING TO A STATE LIFE CERTIFICATE.

SIXTH YEAR

Economics	Sociology
Advanced Psychology	Ethics
Advanced Theory and Practice 2	Advanced Theory and Practice 2
Two of:	Two of:
English	English
Latin	Latin
German	German
French	French
Differential Calculus	Integral Calculus
Geology	Astronomy
Advanced Chemistry	Advanced Chemistry
Industrial Work	Industrial Work

As is readily seen, provision is made for six years' work in English, Latin, science, mathematics, or industrial work; five years' work in German; four years' work in French; three years' work in history, etc.

I should admit graduates of approved four-year high schools to the fifth year of the course and require of them the following work:

First Semester	*Second Semester*
Professional Reviews in Grammar and Arithmetic	Professional Reviews in Geography and Physiology
Psychology	History and Philosophy of Education
Methods and Observation 3	Methods and Observation 3
Child-Study 2	School Law 2
Practice Teaching	Practice Teaching

High-school graduates seeking the life diploma would take, in addition to the foregoing, the sixth year of work already outlined. With two electives offered in the last year, this would give opportunity for double courses in language, mathematics, science, etc., in harmony with the student's high-school preparation. To the scholastic training suggested, I should incidentally add sidelights on manners, morals, and good citizenship. I assume sufficient equipment and teaching force to give effectively the work proposed.

These are mere hints at a course of study and must be accepted as the suggestions of one who draws his inspiration largely from the prairie stretches of the Dakota country.

WHAT RELATION SHOULD THE HEAD OF THEORETICAL AND SCIENTIFIC EDUCATION SUSTAIN TO THE PRACTICE SCHOOL?

JOHN A. H. KEITH, PRESIDENT STATE NORMAL SCHOOL, OSHKOSH, WIS.

There has been much controversy in recent years regarding the relation of theory to practice, one group holding that theory shows that by which practice should measure itself, while the other group maintains that successful practice is that by which theory should be determined. This opposition was revealed clearly at the alumni banquet of a normal school recently. A graduate of the class of 1875 said, in substance, "The first lesson the new graduate needs to learn is that the actual school is not the school studied about in pedagogy and psychology." The graduate of June, 1908, said, in substance, "If the actual school is not the school we have studied about, the actual school ought to be transformed and glorified until the real school is in truth the ideal school." Both apparently overlooked the interrelationship of theory and practice. Genetically, practice precedes theory and theory in turn modifies practice. Modified practice demands a new interpretation or theory—and so, by a dialectic process, both theory and practice develop.

Theory is, after all, but a generalized interpretation and ideal projection of successful practice. By its nature, therefore, it exists as an introduction to, and a suggested modification of, existing practice. Theory is to possible successful experience in teaching what mathematics is to successful railroad building—a body of knowledge that has value, not in and of itself and for its own sake (whatever that may mean), but in its relation to concrete achievement.

In some quarters, however, theory has become partly synonymous with "speculative hypothesis." Hypothesis is, at best, but a bold guess at the uniformity underlying phenomena. If unverified by subsequent experiment, the bold guess of hypothesis deserves the approbrium of the adjective, speculative. The topic for discussion this afternoon, however, makes clear its meaning of theoretical by coupling it with scientific. Ever since Francis Bacon turned from the easy method of authority to the toilsome method of verification by observation and experiment, scientific has meant verifiable and has been synonymous with a non-speculative attitude toward all the phenomena of life.

The phrase "theoretical and scientific education" is therefore interpreted as including the laws of education that are capable of being worked out practically and also a definite attitude toward the working out of these laws.

Whether agreeable to us or not, the topic under discussion involves the purpose of a practice school in a normal school. The ends to be attained by a practice school constitute, to my way of thinking, a trinity. First of all, if there is any theory or conception of education held by those responsible for the conduct of a normal school, the practice school should be the living embodiment of this theory. If such is not the case, the normal school is untrue to its duty of being a norm, or standard-setting institution. I think every practice school inevitably embodies some theory of education, altho it is often true that the theory so embodied is not the theory taught in the classes of the normal school. This only proves that there is something fundamentally wrong either with the head of theoretical and scientific education or else with the practical control of the school.

In the second place, the practice school exists to afford concrete illustrations of the theoretical and scientific education taught in the classes of the normal school. If, for example, students are studying discovery as a method of learning, they should be afforded an opportunity of observing children who are actually learning something by the method of discovery. This example will serve as a type of what I mean by the second end to be secured by the practice school.

In the third place, the work of a normal school is never really completed until the student has shown some power in actual teaching. One may comprehend the theory and yet be unable to exercise the actual control demanded by the theory. From this point of view, the practice school exists as an opportunity for students in the normal school to gain some small measure of skill in actual teaching.

We are now ready to take up the question involved in the assigned topic. The topic does not ask as to whether the head of theoretical and scientific education should be the president of the school or a member of the faculty, probably because the amount of executive work demanded by the size and organization of the school controls the answer. Be the size and organization of the school what it will, the head of theoretical and scientific education should sustain an advisory relation regarding the general organization of the practice school and the general aspects of the course of study. I urge an advisory relation rather than control, because control of a practice school of any considerable size, if effective and constant, is enough, of itself, to occupy the time and prowess of any one person. This advisory relation makes it possible for the executive head of the practice school to give a less-divided attention to the actual details of the work and also to look for suggestions to the one who is so far removed from the concrete details of actual control as to have a reflective perspective. This general proposition is subject to modification, however, when the head of the practice department or any of the supervisors of practice have unusual teaching power in certain lines, and when the head of theoretical and scientific education has unusual teaching power with children or in supervision of practice teaching.

In order that the advisory relation set forth above may have some influence upon the general organization and the course of study in the practice school, as well as upon the practice teaching of normal students, frequent conferences are necessary. These conferences should be with all those concerned in the actual administration of the practice school, and should, in general, have for their purpose the definitizing and actualizing of the ideal of education to which the school as a whole is committed. In these conferences the discussion of difficulties encountered in honest effort to realize the ends set up for practice-school pupils and normal-school students alike should be a regular part of the program. The head of theoretical and scientific education ought to be able to advise wisely regarding both classes of difficulties; and the necessity of considering these practical difficulties will do much to keep one's feet on the earth.

Another relation is to what is called observational work. Separate classes in observation may or may not be desirable; but observation of children at work, in amount sufficient to give concreteness to the theoretical and scientific education taught to normal-school students, is imperative. The planning of this work should be done by the head of theoretical and scientific education. To plan such work advantageously requires that one be actually conversant with the work done day by day by the different groups of children in the practice school. Simply to observe children has little value. It is the working over of successive observations, the perception of a relationship between or among observed things that really counts in the education of one who aspires to be a teacher. This means that the observations by the classes must be worked over by discussions. This discussion of observed work is really a very difficult matter to conduct profitably. The mere twaddle of repeating what was done and passing final judgment upon separate acts by teachers and pupils should be replaced by a form of discussion that involves some genuine thinking; but, at the same time, the seeing of things that were not actually in the recitation is to be avoided. By means of such discussions, students should build up some standards of judging and criticizing their own teaching as well as that of others. These same standards, if well established, will tend to prevent jealousy, gossip, and backbiting—three sins not yet obsolete among teachers.

The head of theoretical and scientific education is particularly susceptible to illusions, especially those relative to what we ought to do in schools. We ought not to do the impossible, and even the possible is accomplished only with great difficulty. There is nothing quite so sobering to the judgment as the necessity of facing one's own work. The head of theoretical and scientific education ought therefore to teach in the practice school and before his own classes in order that he and his students may appreciate the difficulties involved, and in order that he become not visionary. Such work, when well done, also exerts a wonderful effect on students by giving them standards to which they can recur. Above all, such concrete illustrative work by the teacher of education tends to break up the tendency to teach as one has been taught.

To summarize by generalization: I have urged that the head of theoretical and scientific education should have an organic and vitalizing relation to the practice school, tho not its executive head; that it should be his constant endeavor to bring to the practice school an inspiring and illuminating theory; and I have shown that, if this is done, it will react most helpfully upon the content of the theoretical and scientific education taught to the normal students.

In setting up all these relations as desirable, I have outlined more than any one person can accomplish. This fact does not, to my thinking, vitiate the conclusions reached in any way, for the question at bottom is as to what relation should exist between instruction in education and the concrete process of education that goes on in the practice school.

DISCUSSION

JOSEPH H. HILL, president, State Normal School, Emporia, Kan.—The point of view of my discussion is that of practical agreement with the paper with possibly some difference of emphasis in matters of detail. The practice, or as I prefer to say, the training school, is the heart of the normal school. It exists, as has been said, as a concrete realization of the view of education held in the normal school. It not only exemplifies, but tests that theory of education; and more, it may be, to some legitimate degree at least, an experimental school, a place for the investigation and the discovery of educational truth. The conjunction of theory and practice in the training school is the distinctive feature of normal-school education that more than any other gives it efficiency professionally as compared with the general training that has been assumed so often to be the only preparation necessary for teaching school. Yet it must not be forgotten that the normal training school defeats its own purpose if it be thought of as existing only for the sake of exemplifying or even discovering pedagogic theory or if it be thought of as existing only for the sake of the intending teacher. It is a school; and if it is a real school, not an artificial one, its supreme interest is in the boys and girls who are to be taught; the supreme end of its processes is their growth and the development of their powers and character.

This side of the case is emphasized to bring out the idea, not overlooked, as I feel, by the writer of the paper, but perhaps needing emphasis in order that two halves may make the concentered whole, that the work of administration in the training school, and the direction of its instruction, in order to secure the most efficient results, must be maintained under conditions as nearly natural as possible, and involving the maximum degree of freedom on the part of those immediately concerned with the work. I should preserve the integrity of the training school as such, and in matters pertaining to its organization and the general aspects of its course of study as well as the working out of its details, I should exercise great care not to impair the power and hence the efficiency of its principal and those immediately associated with him in daily work.

Considering, therefore, the principal of the training school and the head of theoretic and scientific education as co-ordinate workers in the same field, I should be in substantial accord with the detailed suggestions of the paper as to the recognized functions of each; I should think of neither as in any sense to be subordinate to the other, but should regard their relation ideally to be that of sympathetic and intelligent co-operation. Such a relation can be maintained successfully only when at least three things are implied: (1) A spirit of cordiality, frankness and tolerance in their personal relations; (2) A general accord as to the theory of education in its psychological and philosophical aspects; (3) An actual understanding by frequent conference, full discussion, and, as much as possible, observation of the work of each by the other.

Given these three elements and details may safely be left to be determined as conditions, largely local or temporary, may demand. Given these elements, and there need be little concern as to differences of detail in the presentation of theory and the places and methods employed in daily work. The qualities of an educational philosopher and an efficient administrator are not necessarily, perhaps rarely, united in the same man. Two men, totally unlike, yet one in spirit and in purpose, may admirably supplement each other. Unity is not necessarily uniformity. There are a thousand ways to exemplify good teaching in a given lesson with the same subject-matter, all in harmony with the same educational philosophy, if there be a thousand teachers, each naturally and freely giving expression to himself; and there are ways innumerable for the same teacher to teach the same lesson, if he be seer enough to choose the way not looking within at himself but following the line of vision from himself to the mind yonder of the waiting and expectant child. "Not the form, but the spirit,"is the true motto of the training school, and, when that is realized, then may he that teaches reverently and not boastfully say to the taught: "The words that I speak unto you, they are spirit and they are life."

John E. McGilvrey, principal of Cleveland Normal School, Cleveland, O.—The practice school is sometimes planned and conducted with the purpose of giving the greatest possible degree of skill to the beginner in the shortest possible time. And in many of our city normal schools this, even though an unconscious presupposition, is the standard by which the effectiveness of the entire work is finally judged. This undue emphasis upon immediate skill, demanded especially of the city normal school by an overshadowing system, tends to control matters of organization and steadily to narrow the view of the individual student in the practice work. The beginner, losing sight of the theories and principles of education previously studied, substitutes therefor empirical knowledge, generalizes from a few facts, and fixes the habit of relying on direct and individual observation. This means an early end to the period of growth by the limit of self-satisfaction; and the instruction in the department of theoretical and scientific education has thus failed in its chief purpose.

This tendency in the mind of the student toward the divorcement of scientific knowledge from practice finds its counterpart in the movement toward a complete separation of the two departments, with the head of theoretical and scientific education in merely nominal control of the practice teaching. And such a relation I believe to be the natural and inevitable result wherever the dominating aim of the practice work is to give to the student-teacher a high degree of skill in the immediate problems of management and in the teaching of a special and limited subject matter in a particular grade.

If, on the other hand, the aim of the practice work is not specialized skill but a deeper comprehension of educational principles and problems previously studied, the student-teacher's attitude toward the work of the day and in the years to come will be entirely different. When confronted with the confusion of unrelated facts the tendency is forming to look deeper into the facts for an organized system; and this power of insight and comprehension achieves results beyond the reach of mere mechanical skill in a narrow field of action. In the words of Emerson: "By a deeper apprehension and not primarily by the painful acquirement of many manual skills does the artist attain to the power of awakening other souls to a given activity."

The question of normal-school organization under discussion is subordinate to, and must be answered in light of, what constitutes preparation for teaching. And in teaching the science of education, as a part of that preparation, we are subject to the same laws and conditions that govern the teaching of any science. What the experimental laboratory is to the study of physics the practice-school laboratory is to the study of education. One might, in the teaching of physics, present the entire subject from the theoretical standpoint before the experimental work was begun, but so doing would be very unusual and would rightly meet with opposition and criticism. One might, and it is not unusual, attempt to equip the student with the entire body of the theory of education in the abstract before the practice work is begun, and it would provoke little or no criticism; which means that in the generally accepted view of the fundamental law of knowing—namely, that concrete conscious experience must constitute the material of generalization—controls the teaching of the science of physics but not of the science of education. But the stubborn fact remains that only concrete conscious experience with the actual teaching process can give content to the philosophy of education and general method, and that a law or principle in education, as well as in physics, enters the mind only thru the medium of the facts or things which it is meant to explain. Such being the well-established fact, the practice work must be considered an integral part of the instruction in theoretical and scientific education in the same sense in which the laboratory practice is a necessary part of the instruction in physics, and, therefore, the head of theoretical and scientific education should have immediate and direct control of the work in the practice schools; not merely an advisory but a supervisory relation.

The most difficult problem confronting the normal school in preparing a teacher is to establish in the mind of the beginner a connection between theory and practice. To enable the would-be teacher to recognize in the concrete situation confronting him in the act of instruction the controlling principles and governing laws of the mental exercise is the one all-inclusive aim of normal-school instruction. Failure in this means failure in all things else, so far as the preparation of a teacher is concerned. With this realized, standards of judgment and self-criticism are established which will save future experience from the fate of deadly routine and will develop that spirit of self-reliance and power through which the teacher's personality becomes a matter of greater moment to the pupil than the subject matter of instruction.

Because of the importance and difficulty of maintaining in the thought of the student this connection between the principle and the practice it seems to me that the head of theoretical and scientific education in the normal school should personally supervise and direct the teaching of the students in the practice rooms. And when, because of numbers, such personal direction becomes impossible, the supervision should be continued by those under his immediate direction.

THE RELATION OF OBSERVATION TO PRACTICE-TEACHING IN THE PREPARATION OF THE YOUNG TEACHER

L. H. JONES, PRESIDENT, STATE NORMAL COLLEGE, YPSILANTI, MICH.

The comparison which I am to make between these two vital processes in the training of teachers does not require me to discard either, but rather to state, if I can, the appropriate relationship between the two when both are used. Each of the two will doubtless be found better than the other for the attainment of certain ends in training, while neither will be found competent to displace the other or attain its ends. The normal school proposes efficiency in education as an end in the training of teachers; and efficiency in teaching as one of the subordinate ends in the process of the achievement of general educational efficiency. Efficiency in teaching is a standard set up to mark success in the art side of that work, i. e., teaching as a process is actually accomplished in accordance with the rules which enable one to master an art. In order that the crudities and mistakes in the practice of an art may be reduced as greatly as possible a preliminary course of study which shall be of the nature of a science is desirable. Especially is this true of the art of teaching, since its crude practice involves such serious consequences to the youth who are unfortunate enough to fall into the hands of the teacher who without scientific preparation practices his art on defenseless children. Even practice-teaching is made a part of the general preparation, because if first teaching be done under helpful criticism, its period of greatest crudity and inefficiency may be shortened in the interest of the pupils even more than in the interest of the student-teacher. But analyzing preparation into its parts, we shall see at once that observation is distinctly on the science side of preparation, while practice-teaching as a process, though a part of preparation, is of the nature of an art, wherein efficiency is finally based to some extent, at least, on skill, however acquired.

An accurate analysis of each of these two processes, then, will enable us to see clearly the appropriate place of each in a full course of training for the young teacher.

1. *Observation.*—By this term I mean observation of teaching done by an expert, in whose teaching the better elements of the process are shown concretely, i. e., in action, while the elements of failure, often seen in poor teaching, are mainly absent. Observation of the work of a fellow-student should be deferred till a late period, if allowed at all. In the early stages of training a student-teacher should be protected against familiarity with poor teaching, as an artist should in his formation period be protected against the vicious influences of low-grade art.

The special advantage of observation lies in the fact that it presents to the student-teacher, in the most concrete and vivid form possible, the elements of an ideal or standard of the process which he is presently to try to perform. It differs only in these two respects from all the theory work which has presumably preceded it. The whole preceding study of education so far as it bears on success in teaching is but the gathering together of the elements of a standard or ideal of the process of teaching. The expert teaching does not probably give any or many new elements; it rather shows one of the countless combinations which an intelligent teacher is prepared to make at a moment's notice from the varying conditions of the schoolroom. But it is the actual combination, at work before the senses of the observer, carried on by a being of like characteristics to the observer, and calculated therefore to inspire the observer with a sense of power so necessary in the first practice of the most difficult of arts—that of teaching. Intelligent observation takes notice of the elements which make up the moving ideal, studies how they are combined, which elements are predominant or controlling, and how the combination as a whole accomplishes its work. If one notices only how the combination as a whole accomplishes its results, he is likely to become a servile imitator. To allow observation to take on this character is to lose its wholesome effect as a preparation for practice-teaching and to make it an evil, in time, in the young teacher's training. But to analyze the concrete process as it goes on before the observer, seeing which are the effective elements in it, prepares one to place similar elements of strength in his own ideal of teaching when he is forming one for immediate use as he stands before his own class. The student must so far analyze the case as to separate from the individual personality of the teacher such actual elements of the teaching process as he can unite with his own individual personality and still keep them effective, and discard those which belong wholly to the individual personality of the teacher; unless, indeed, he should devote himself to making his own individual personality like that of the teacher observed.

But this analysis, made under the direction of the training-teacher whose teaching has just been observed, is in no important respects different from previous work done in psychology, pedagogy or history of education. In each of these studies the student-teacher analyzes conceptions of human nature in order to see how human nature is properly related to educative processes; or analyzes subject-matter to find out how its mastery will be related to the great educative processes of the school; or analyzes educational ideals of the past or the present to see which of these have the merit that renders them a fit part of his educational ideals. In the study through the observation of teaching his subject is limited to teaching, and the concrete illustration to be analyzed is somewhat complicated by the personal elements entering into it. There is therefore an intensity of study scarcely present before, and by reason of the living character of the process an interest scarcely possible before. Another difference must also be noted. In all previous studies and analyses when one had found an element of one's proper ideal, one could only philosophize about its probable effect in an educative process, judging results merely by its nature; but in observation one finds this element actually at work and one may see its effect on actual children when used by an actual teacher. This tends to give substantial character to educational processes and an air of actuality which preceding studies lacked—which indeed most theoretical studies lack.

Before turning to the analysis of the practice-teaching process, some consideration should be given to what lies between the two provinces, but which, after all, emphasizes the attitude assumed in this paper. This is the fact that practice-teaching, when it comes, if it shall be profitable to the student-teacher, must proceed from an inner urgency and not from outward pressure of any sort. Now inner urgency to do a thing consists of several elements, among which the following are prominent: clearness and vividness of the idea or ideal of the act to be performed; the depth or strength of the desire to see it accomplished—especially by ourselves; determination to put into the action every element of power that one thinks will tend toward its accomplishment. Now his state of mind in regard to teaching has been growing in some form in the mind of the student-teacher during all preceding study; but its effectiveness is greatly enhanced by this visible accomplishment of the end by one who uses the very elements of power which our studies have led us to have faith in. The vivid conception thus evolved is happily correlated with the elements of our personality—whether spiritual, mental or physical—to the end that every native power of the person is already toned up for the particular process or processes required for success. The teacher who proceeds from this vivid and intense inner urgency to teach will never simply imitate, but will teach, because the whole personality is in harmony with the processes which make up the teaching act. Such a teacher is original and generally efficient, and the training acquired in this way enters into the permanent equipment of such person as a teacher.

In approaching the practice-teaching process, it is well to clear the ground a little by saying that the first teaching should be something simple, so that the student-teacher can succeed on the first trial. One success is worth a hundred failures as an element of growth in power to teach. It is possible for some particular person to be so self-satisfied or so egotistical as to need the humiliation of a defeat before he will consent to teach in accordance with the principles of true success; but even then the failure is no part of the success nor an element in the growth of the power to teach. It is merely some preparation of soil, making it fit recipient of the seed. But true growth in power to teach comes from the success of teaching that has been done through self-urgency, coming from a clear and vivid conception of the end to be attained and the true means of its accomplishment. This vividness of conception comes to most persons most easily by observing a successful teacher teach. Following such observation one will try to teach under what will prove to be the easiest conditions—the harmonious tendency of his whole personality toward the realization of his conception of what it is to teach in any special case.

Practice-teaching is a complex process, tho it looks simple. If the training-teacher has proceeded wisely the student-teacher is in a state of inner urgency—i. e., he wishes to teach this particular lesson as a result of the complete and clear conception he has of it and of the appropriate means of its accomplishment and his personal feeling of pride in worthy achievement. The last step in this preparation is by choice the observation of the training-teacher teaching similar things to these same children. Under these circumstances there is no element of the student-teacher's personality at war with any other. There is no element of fear of his critic, no fear of failure to cast its baneful shadow before, no fear of the pupils themselves to interfere with the prompt thinking, feeling and deciding which make up the mental operations of the teaching process. Happy is it for all if first effort, free and happy, shall be successful; leaving necessary adverse criticism till later stages when it can be better borne and when doubtless it will be necessary, covering some of the graver problems of teaching and discipline. When criticism must come it should be mainly directed to the development in the student-teacher of a reasonable habit of self-criticism. The growth of this habit however should not be made so great as at any time to interfere with the free play of thought and feeling without which there is no real teaching.

Thus it will be seen from my analysis of the case that observation of expert teaching is a necessary part of that preparation for practice-teaching which consists of a clear, clean-cut, vivid conception of what good teaching is and what processess are involved in it. It is difficult to conceive that students can gain sufficiently vivid and concrete conceptions of the process without more or less of such observation work.

DISCUSSION

James F. Hosic, head of the Department of English, Chicago Normal College, Chicago, Ill.—Observation seems to me an essential part of the preparation of the young teacher. The value of student-observation of teaching, however, is largely dependent upon the conditions surrounding it. In the first place, neither observation nor practice-teaching will very much profit the beginner unless what he sees or does is typical. There may be such a thing as "formal discipline" in teaching; but if actual teaching is to be better because either observation or practice has preceded, there must be many elements of experience common to the two. Under present conditions. a practice-room should contain thirty-five or forty children who are following a regular, graded course. The observer should see the children at work as they would be if he were not present. He should not be a mere looker-on at a lesson to which he has been specially invited, but should be able to drop in at various times and seasons so that he may come to know the normal life of the room. He should have opportunity to study the children he is to teach. It does not follow that he should see the regular teacher present just such material as that with which he will begin. He should feel a lively, compelling interest in all the activities of the room. If teaching has come to seem to him worth while, he will do so whether the pupils are later to be his or not. Now no mere "model school" is likely to supply conditions such as those just outlined—certainly not all of them. The very name has come to signify something untypical. The children in such a school are generally from only a part of the community. They are few in number, and very generally have had more than ordinary home advantages. Those who teach these children are often college instructors in education as well, and can hardly avoid conducting the model lesson with more than half an eye to the student-teachers present, who have come to see certain definite theories and methods exemplified. Personally-conducted observation this, where your guide tells you beforehand what you must see, and assures you afterward that you have seen it. Does some youthful Twain ever inquire, "Which is the statue, which the pedestal?"

The classes for practice in the model school, moreover, are proverbially small. Training-schools in large cities can and often do have large practice-schools. That in Chicago, for example, has two practice-schools, one in a foreign district, with a total of over two thousand five hundred children. But this provision is rare. Practicing on a dozen children, with a training-teacher hovering near, is a long way from the stern reality. No wonder that the normal graduate so often returns to his alma mater to tell his teachers reproachfully: "I have had to unlearn all that I learned at the normal school." Of course there will always be need of adjustment to new educational surroundings, but the process should not be made more painful by a naive underestimating of the difficulties which must be met.

This leads me to say that I am compelled to differ from the writer of the paper on one or two points: (1) Should the student see little or no teaching by fellow-students? If we assume that he comes to his observation at the time when he is carefully considering the nature of children and the principles of teaching, we may be reasonably certain that he will discriminate. We used to say that the child should never see wrong forms. We know now that he will see them sooner or later, and that he invents a good many for himself. There is another maxim to the effect that he who is forewarned is forearmed. (2) Should the way be very carefully smoothed for our beginner? Not too carefully. Failure is hard to bear when it follows notable success, success that was won so easily—because somebody else arranged the combination! Success is more or less relative. The beginner may not hope for a high degree and should not be deceived into supposing that he has won it. Many people never become better than fair, moreover, simply because their powers of mastery have never been called out. And there are some candidates who ought to fail. Failure would discourage them out of the profession—to the lasting good of everybody. Certainly the number who must learn by their blunders is not small. I should hesitate to say that all such are egotistical, unless the word means merely human. Of course criticism of the beginner need not be ruthless. We may "temper the wind." But the student should be brought face to face with a concrete problem of teaching; he should have the privilege of arranging a solution for it; and if his plan has promise he should be free to try it. He will then actually be practicing. Otherwise he will simply be trying to learn to teach as Miss or Mr X. Y. Z. teaches, and the danger is that he will succeed.

In closing, let me suppose the case which the speaker before me has preferred not to consider. If we were to choose either observation or practice, which should it be? I have heard the "educational clinic" warmly upheld. The clinic has the advantage of being easy to arrange. Given a gallery, and one demonstrator, with a few specimens, can do the rest. At the summer schools, to be sure, something of this kind is all that is possible. Well for the luckless grown-up if he do not have to observe teaching and be Johnny-in-the-primer-class both at once. But students at summer schools are not mainly young teachers and may be trusted to make a good deal of allowance for unusual conditions. For the inexperienced teacher, the beginner, the "clinic" can never suffice. But neither can the right to sit many hours in a typical classroom where the normal life of the school may be observed. It looks easy until you try it. But to point the moral by an analogy, nobody ever advances far on the road to a tennis championship until he gets out on the court. And in the game of education, likewise, there is no substitute for earnest, serious, judicious practice in teaching normal children under typical conditions.

J. W. CRABTREE, president, State Normal School, Peru, Neb.—If agreeable I will limit my part in this discussion to giving some concrete data on the one question as to whether it is of any special advantage to the young teacher to take observation before doing practice teaching. I took the records of twenty-five graduates who had taken observation before practice or any other form of teaching. Tho we require observation first in our course of study, I was able to find the records of the students who, because of conflicts in their programs, and for other reasons, had been allowed to take practice-teaching first, having taken the course in observation later.

Here is the result:

	Group 25	Group 10
Average observation grade........................	$86\frac{1}{2}$	92
Average teaching grade...........................	$91\frac{1}{8}$	$88\frac{2}{5}$
Average observation and teaching grade	$88\frac{11}{12}$	$90\frac{1}{5}$
Average, doubling the value of teaching.... ...	$89\frac{13}{18}$	$89\frac{3}{5}$

These grades show clearly that better results are secured in each course when this course has been preceded by the other. It will be observed, however, taking these grades as a true measure of professional attainment, attaching equal importance to observation and practice-teaching as we are in the habit of doing, that group ten, the one having taken practice-teaching first, has the better preparation. It is necessary to attach double importance to practice-teaching in order to give group twenty-five equal teaching equipment with group ten.

Observation being a year in advance of practice-teaching, these young people seem to fail in appreciating the real bearing and value of their work in observation on their next year's practice-teaching. Thus a good deal of time is lost in getting the class up to what we call the appreciation point. Possibly more time is lost then when practice-teaching comes first, the reason being that in practice-teaching the suggestions of the expert critic teacher have point to them at the moment. The student applies them at once. It may look as if these figures are disproving the proposition that observation should precede practice-teaching. Not so, but it does place in doubt whether this arrangement—observation, followed by practice—necessarily gives the best preparation for teaching. If you attach any importance to these figures as measuring teaching attainment, you can easily see that it would at least be a hair-splitting process to find any actual advantage to the would-be teacher to have his course in observation before, rather than after practice-teaching. If you take into account fractional per cents. would you not choose your teachers from group ten, rather than from group twenty-five?

Every one educated in the public schools gets certain notions of teaching from his teachers, ideals born of a long-time experience, sufficiently definite to enable one to begin practice-teaching with at least a degree of intelligence. Would it not be better, thinking only of the one preparing to teach, to have some experience in the practice school before taking the technical course on observation and special methods?

While the range of this investigation is narrow and the data not known to be sufficiently accurate and typical for drawing real scientific deductions, it certainly presents enough of interest to suggest further investigation along these lines. If the conclusions of this paper are accepted it does not lesson in the least the appreciation of President Jones's excellent paper. His statements regarding the amount and character of observation work, how to fit it and practice-teaching into each other, making observation more or less theoretical and practice-teaching an art, in fact everything in his paper stands the test of criticism, except the one conclusion, and that only an implied conclusion; namely, that it is of advantage to the young teacher himself to have observation before practice-teaching. That conclusion has been brought into question.

But observation should precede teaching practice tho for a very different reason. There can be little or no gain, as has been shown, in this arrangement for the would-be teacher; there is quite likely some loss in it to him.

Observation should come first, however, when considered not from the standpoint of new teachers but from the standpoint of the children in the practice school. Better sacrifice one per cent. on the teaching proficiency of the would-be teacher than to sacrifice one or more per cent. on the well-balanced development of each child in the practice school. This thought appeals most strongly, of course, to those of us who have children in the practice school. For the sake therefore of the children who are unfortunate enough to be constantly experimented upon in the interest of others, let us require even more preparation then ever before in observation and in methods, permitting no one to teach these innocent and defenseless children until it is certain that he will meet with a degree of success. Let us sacrifice, if necessary, some time on the part of one preparing to teach rather than permit even the few children in the practice school to receive the irreparable injuries that result from malpractice in teaching.

From the standpoint therefore of the one preparing to teach it may matter little which comes first, observation or practice-teaching, but from due consideration of the welfare of the children to be taught, there is only one order of precedence, observation and then practice-teaching.

REPORT OF COMMITTEE ON STATEMENT OF POLICY REGARDING THE PREPARATION AND QUALIFICATION OF TEACHERS OF ELEMENTARY AND HIGH SCHOOLS

WHEREAS, The public schools are the schools of the people;

WHEREAS, The public schools being the schools of the people, all factors in their organization are very clearly identified with the life of the people;

WHEREAS, The preparation of teachers is an important factor in the success of the schools and in the development of civilization; and

WHEREAS, The normal schools have grown out of the thought, sentiments and opinions of the people, and are the direct expression of the will of the people, be it

Resolved:

1. That the state normal schools make high-school graduation, or equivalent, a basis for admission to the standard normal course.

2. That the normal schools prepare teachers for the entire public service —elementary and secondary;

3. That the preparation of the elementary teachers be two years, and of the secondary, four years;

4. That the normal schools establish well-organized departments of research work leading to the solution of problems affecting education and life;

5. That while the normal school is not the only agent for the training of teachers, it is the state's chief agent, and as such it should set up standards of teaching, determine ideals, and train men and women whose call is to educational leadership;

6. That the colleges and universities should not dominate the courses of study of the high schools to the end of making them preparatory schools, thereby preventing these schools from being the best expression of the whole people;

7. That the curriculum of the normal school should be broad enough in scope to touch all phases of special preparation demanded by the broadening curriculum of the public schools.

C. C. VAN LEIW, *Chairman*
DAVID FELMLEY,
Z. X. SNYDER,
Committee

DISCUSSION

DAVID FELMLEY, president, State Normal University, Normal, Ill.—The preamble to these resolutions is an attempt to set forth the actual relation of the normal school to the public-school system The normal school has been established in every enlightened nation where the education of the children of all the people is recognized as a duty of the state. It is due to the same cause as has set up the technical school in all the professions and higher occupations; namely, the demand of modern civilization that every man shall make adequate preparation for his chosen work. It is recognized that teaching is an art—a rational art, based upon a body of underlying knowledge of the purpose of the school and of the laws of development of the child, and that a reasonable degree of skill in this art is best obtained at the outset by practice under competent direction.

In the paper of Commissioner Brown before the Council Tuesday morning it was stated that the normal school is a sort of blind alley because it does not look to some higher school for its standards and directions, and to which it may send its product. This is true and to our honor. We front the common school and its problems; its needs are our needs. Whatever the people believe should be in the schools must straightway find a place in the normal-school program.

The resolutions follow logically from the preamble and are made necessary as a statement of policy because of the attempt made to separate the common school into two distinct parts. In some states the colleges and universities are assuming the exclusive right to prepare secondary teachers and are demanding that the normal schools restrict themselves to training teachers for the elementary schools.

We do not agree to this program.

Historically the college has been very slow in divesting itself of mediaevalism. Its students still in large part are busied with dead languages and obsolete adjustments. Where the college dominates the high school, as it does everywhere more or less completely where a system of accredited high schools prevails, the high-school program, its subjects, the topics in the subjects, even the mode of instruction, are determined by the needs of the college and they in turn largely by tradition. At a conference that I attended a few years ago, normal-school and high-school teachers were discussing the course in algebra. The question arose, What is our aim in the teaching of algebra? The normal-school teachers attempted to answer by showing the relation of the generalizations of algebra to the particular problems of arithmetic and the value of the experience in the unfolding life of the child. The high-school men frankly said their aim was to enable their students to meet the college-entrance requirements.

The separation of the common school, the peoples' school, into two parts is without historical justification. Our high schools have come about thru adding algebra and geometry, rhetoric and literature, ancient history, the natural sciences and foreign languages civics, economics, and other branches to the other studies of the common-school curriculum. These additions were made gradually and without any change in the organization. Then came the attempt to drive a wedge thru the common-school curriculum just above the eighth grade. As the years proceed the separation becomes wider. Certain branches are called high-school branches, others common-school branches; whereas the elements of the natural sciences and of many other high-school studies belong in the elementary school, while reading, grammar, arithmetic, geography, and U. S. history should *all* be taught somewhat in the high school. Separate buildings, even separate school boards are sometimes provided. Ignoring the fact that the development of the child is continuous, undue emphasis is laid upon the differences between adolescence and childhood, to the effect that the teacher of youth needs to know little of the teaching of children. All this has injured the schools.

The normal school should not abandon the high-school field. The colleges and universities, while claiming the exclusive right to furnish high-school teachers, have not made adequate provision for equipping such teachers. In many college circles pedagogy is still sneered at. Anybody, they say, can teach a subject if he knows it. In actual training in the art of teaching under the direction and criticism of skilled training teachers the college does practically nothing. Hence most of these college fledgelings, when installed as high-school teachers, have little to guide them except their recollection of the practice of their college professors.

A rather well-defined caste feeling is developing among the teachers of our cities. The members of the exclusive caste are no more sharply set off by the branches they teach, by the schools they have attended, by their social position, by the salaries they receive, than they are by their indifference to the general problems of education.

But even if the colleges were prepared to train their teachers and were not unduly dominated by antiquated ideals it would not be wise to turn over to them the exclusive preparation of all but elementary teachers. Shall the teachers in the grades be taught in the normal school while the principals and superintendents who are to supervise the work are trained in a different institution with other traditions, ideals, and purposes? The normal schools from the time of David P. Page have made the chief contributions to the literature of practical education. Their students are the most faithful readers of such literature. University departments of pedagogy have turned to the normal schools for their instructors and heads. Shall the leaders in our profession receive a professional training less definite, thoro, or comprehensive than the rank and file of the teaching body? At the present rate of progress it will take the universities some years to catch up with the normal schools as schools for the training of teachers.

It is sheer pharisaism to demand a degree as the one necessary qualification of the high-school teacher, the principal, or superintendent. It places emphasis upon the label rather than the goods. There never was a time when men and women of force, courage, and determination have not pushed up from the ranks to positions of leadership in all occupations. Railroad presidents have come up from the shop or from the section, as well as from the technical schools. Where is the college president or faculty of science able to confer a degree on Thomas A. Edison? The question for a teacher at thirty is not, Have you been to college? but, Are you a student? If the latter, he is the more fit to teach high-school boys and girls.

To restrict the normal school to the training of elementary teachers is to drive out the young men, for practically all of them are looking to administrative positions or to teaching advanced students.

We ask for high-school graduation as a prerequisite for our standard two-year course; but believe it unwise at present to turn away young men and women from the farms who have not attained this academic rank. Few boys in the cities look to teaching. The men in our calling come chiefly from the country. They cannot always come thru the high school. They are too mature and capable to line up with the fourteen-year-old graduates of the eighth grade. From this source the normal school must continue to get much of its best material—young men who in four years will often cover the ground included in the high-school and two-year normal course.

FRANCIS J. CHENEY, principal, State Normal and Training School, Cortland, N. Y.—I heartily indorse the report just read by Dr. Snyder. It formulates an educational policy which the normal schools can approve without apologizing to anybody. I believe that it is a policy that every normal instructor on this floor believes in. If I am right in this proposition, why not say so without hesitation? It is time, I think, that the voice of the normal schools of the republic be heard and their influence felt. The high schools and colleges, in many instances, have been wont to assume a cynical attitude toward them. These institutions have too often in the past treated them with condescension, belittled their work and considered them a class apart. They have been accused of being subsidized high schools doing work of little value at great expense to the state. An attempt has been made to laugh out of court the gospel of better methods of teaching in all classes of schools, from the university down—methods based on well ascertained pedagogical principles—as being altogether visionary.

I am glad to think, however, that a better day has dawned. The product of the normal schools is coming to be appreciated and was never in such demand as it is today. Slowly but surely into the doubting minds of those who are largely responsible for the work in our colleges and universities has percolated the notion that normal schools can do and are doing valuable work. Only the other day the president of one of the largest universities of the state of New York told me that the best prepared students that entered his institution came from the normal schools of the state.

And now I urge that, having formulated an educational policy, the result of long and careful deliberation by an able committee, we stand by it like men who have convictions and who intend to persevere in their utterance until they get a hearing.

DEPARTMENT OF MANUAL TRAINING

SECRETARY'S MINUTES

OFFICERS

President—Jesse D. Burks, principal, Teachers Training School, Albany, N. Y.
Vice-President—Anna C. Hedges, superintendent, Hebrew Tech. School for Girls, New York City.
Secretary—William E. Roberts, supervisor of manual training, Cleveland, Ohio.

FIRST SESSION.—Tuesday Morning, June 30, 1908

The department met in Pilgrim Church at 9:30 o'clock in joint session with the Department of National Organizations of Women, and, in the absence of the president and vice-president, was called to order by C. R. Richards, director of manual training, Teachers College, New York, N. Y.

William E. Chancellor, lecturer on education, University of Chicago, presented a paper on "Democracy in Education." The paper was discussed by Emma M. Perkins, Western Reserve University, Cleveland.

Katharine E. Dopp, lecturer on education, Extension Division, University of Chicago, read a paper on the topic: "Equality of Opportunity Can Be Secured only by a Systematic Recognition of Individual Differences in Native Capacity and in Prospective Career." Discussion followed by Foster H. Irons, supervisor of art and manual training, Superior, Wis.

"The Requirements of Individual Differences Constitute the Rational Basis for Secondary, as Distinguished from Elementary, Education," was the topic presented by David S. Snedden, Teachers College, Columbia University, New York, N. Y.; discussion by Frank P. Bachman, Normal College, Ohio University, Athens, Ohio.

SECOND SESSION.—Tuesday Afternoon, June 30

The department met in Pilgrim Church at 2:30.

S. Chester Parker, Miami University, Oxford, Ohio, presented the subject: "Industrial Development Has Exerted a Pre-eminent Influence on Social Progress," which was discussed by Arthur H. Williston, Pratt Institute, Brooklyn, N. Y.

Carleton B. Gibson, superintendent of schools, Columbus, Ga., presented a paper on the topic: "The Industrial Aspect of Social Life Affords a Varied and Significant Body of Subject Matter Which Is an Essential Element in a System of Education Controlled by Social Standards;" discussion by Starr Cadwallader, superintendent of sanitation, Cleveland, Ohio.

William Noyes, Teachers College, New York, N. Y., read a paper on: "The Important Function of Constructive Activities in Education Is to Reveal the Social Significance of Industrial Activities," which was discussed by James E. Addicott, Isadore Newman Manual Training School, New Orleans, La.

THIRD SESSION.—Thursday Afternoon, July 2

A paper, prepared by Charles H. Morse, secretary of the Massachusetts Commission on Industrial Education, Boston, was read, in the absence of the author, by A. E. Dodd, North Bennett Street Industrial School, Boston. A general discussion was introduced by Carroll G. Pearse, superintendent of schools, Milwaukee, Wis.

"The Requirements of a Program of Industrial Education" were presented as follows:

a) "Constructive Activities as an Essential Part of Elementary Education," by M. W. Murray, supervisor of manual training, Springfield, Mass. Discussion by A. Dodd, North Bennett Street Industrial School, Boston, Mass.

b) "Intermediate Industrial Schools Admitting Children to the Sixth School Year and Equipping Them for Entrance to Industrial Pursuits," by Edgar S. Barney, Hebrew Technical Institute, New York, N. Y.

A preliminary report of the Committee on Collecting Data for Courses of Manual Training in Public Schools, outlining the plan of work, was presented by Charles H. Keyes, Hartford, Conn., a member of the committee. The report was accepted and the recommendation that the committee be allowed to increase its number to a minimum of fifteen or a maximum of twenty and that it be continued for another year was carried.

The Committee on Resolutions presented resolutions of thanks to the officers of Pilgrim Church and the local committee of the Department, which were adopted.

The Committee on Nominations reported as follows:

For *President*, James E. Addicott, director, Isadore Newman Manual Training School, New Orleans, La.

For *Vice-President*, Edna D. Day, a ssistantprofessor of home economics, University of Missouri, Columbia, Mo.

For *Secretary*, A. E. Dodd, director of North Bennett Street Industrial School, Boston, Mass.

The report was adopted and the nominees were declared elected.

The department then adjourned.

GEO. A. SEATON, *Secretary pro tem*

PAPERS AND DISCUSSIONS

DEMOCRACY IN EDUCATION

WILLIAM ESTABROOK CHANCELLOR, LECTURER ON EDUCATION
THE UNIVERSITY OF CHICAGO

Invariably, of necessity, men discover and diagnose the disease before they find the remedy. And only idle scoffers worry the diagnosticians. Less than a hundred years ago, we learned to isolate and to diagnose tuberculosis; but no man yet has discovered the remedy. We have but recently learned what poverty is and are only now learning that its several major causes proceed from sickness, ignorance, and fraud. Some are thinking today that the true remedy is education, while others are asking seriously what education itself is. In other words, for the first time in world-history, man is resolutely attacking the second problem of civilization. The first is how to achieve civilization, the second is how to bring all men to share in it.

The proposition is to educate all equally; that is, in the best possible manner. Any reduction of the educational opportunities of the most fortunate is, of course, out of the question. We are to equalize upward. This proposition is not academic but moral, for no issue that involves a principle can be academic. It is true that we cannot educate all equally now or at any time in the near future; but we can choose the haven and set the chart of the voyage by the compass. We can do so, and in this instance we have done so. That haven is democracy: the chart is universal education: the north pole of the compass is the equality of men and of women in rights. We propose to eliminate from society all the criminal and all the wretched, whatever be the causes of their wretchedness, by cutting off the supply. The process is the complete education of all.

The exact question before us this morning, stated affirmatively, is: The ideals of democracy require that equality of opportunity in education be offered to all. Democracy is a simple matter: it means that authority belongs to the people not as individuals but as a whole, and it implies that the authority shall be used for the common good. In all things, pure democracy asserts that public opinion shall constitute the decision, with no mediate interpretation by any group or by any individual. Democracy sets up not merely public opinion but public decision and determination. Democracy has no room for representative legislatures or for law-making courts but only for the executives of its will. The moment we erect a legislature to do any independent ruling, that moment we depart from democracy. A constitution that binds us to the past is to that extent undemocratic and the court that interprets it is undemocratic; for democracy requires immediate obedience to the present popular will. So far as legislators keep their ears to the ground and short-circuit immediately to their mouths, cutting out conscious brain-operations; so far as judges bow to the popular command, looking to public approval rather than to the letter and spirit of the law; and so far as all executive officers keep their hands upon the public pulse, following its fevers and apathies—in that far government is democractic, whatever be its forms and methods. A New England town meeting is a phase of democracy; other phases may be readily discovered in some of the non-Episcopal Protestant churches.

Democracy has hit upon the device of the ballot, one vote to a citizen, the plurality to rule, as its standard mode of registering its will. An essential principle of democracy is that "one man is as good as another." Absolute democracy would give the ballot to every man and woman.

Now I do not need to say that we Americans are not democrats, pure and simple: we like to say that "we are democrats but not of the extreme type." But this is by no means all. We are partial democrats at best in only a few of the social institutions and not completely even in them. The oldest of the social institutions, property, is not democratic in America. The family is not democratic. The church in most of its forms is not democratic. Government is only partly democratic. Occupation and business present almost no democratic features. Education and culture are, however, partly democratic; and charity would like to be, but cannot. War is the very antithesis of democracy. When, therefore, we talk of American society as democratic, we are talking of ideals and of tendencies. not of realities taken altogether in one view.

This matter of democracy is sometimes said to be itself academic; but those who think so do not know American history and present American conditions. There are eddies and back currents, but the tide is toward and into democracy. It is therefore useless for the individual, upon such an occasion as this, to profess support of or opposition to democracy; one might as well talk for or against gravitation or electricity or sunlight. All that we can do is put ourselves in proper relation with that overwhelming tide. So wide and swift is the movement into democracy that it has but few martyrs, though many heroes.

This view is so common that we don't talk much about democracy; we simply try to obey the social will. No two men are likely to agree as to what the ideals of democracy are; and a close examination of the present question shows that I do not need to discuss them. For the question may be stated affirmatively in this form: Equality of opportunity in education for all is an ideal of democracy. There is no person in America who will deny that proposition, even for the cases of negroes and of Chinese. Moreover, we may say equally that equality of opportunity in law and government, in business, in everything, is an ideal of democracy; and none will deny the proposition. There are, however, some who will promptly say: I believe in only a partial democracy, for it is entirely obvious that there is no reason why in America we should afford in education equality of opportunity to negroes, to Chinese, to Japanese, to Indians, to the city poor, to the isolated rural children, to the backward, and to girls, with white boys of well-to-do families of Teutonic stock in the cities. I shall not discuss this proposition, though it appears to be the answer of actual American practice to the democratic theory and tendency.

Education is a process known by its results. In part, this process is natural. In some measure, every person grows; this feature of growth man shares in common with all life. But in large measure, in the cases of most persons in a civilized society, education is an artificial process—facilitated, if not actually forced. In the terms of physio-psychology, education increases the rate or speed of nervous action; it widens the field of consciousness, increasing the number of items held in attention; it improves the power of retention; and likewise, it improves the quality of recollection. Obviously, this is in part a physical, in part a psychical development. It is in part a matter of occasional acts and in part a matter of habits of action. With the same obviousness, it appears that these improvements may be so effected as to delay or even to prevent natural development, which is the familiar danger of encouraging precocity.

The process of education may be stated in various other terms. In those of popular psychology, we may say that education produces quickness of thought, energy of motivation, power to concentrate attention and to recall former intellections, emotions, and volitions, and therefore produces better judgment. Or we may put this otherwise and say that education quickens energy and intelligence, induces and develops efficiency, establishes habits of moral action through the result of thoughtful consideration of experience. Education, again, may be stated in the terms of sociology and of economics, of ethics and of philosophy, and of common sense. It may also be stated in terms of knowledge. Education is always a zigzag or dialectic from inner to outer, from outer to inner; it is a two-cycle phase of objective and subjective; and it is a spiral whose limits of diameter and of altitude are suggested not by the average so-called "educated" man but by such as Aristotle, Michael Angelo, Newton, Shakespeare, and Washington.

We educators only belittle education ourselves when we speak of a well-educated young collegian or high-school youth. I am not here in any capacity as a purist in English; but did you ever look for something in a dark closet and, failing to find it, get a good light? How different the task was: indeed, the task ceased at once. The right word is a light in a dark place.

In the sphere of education, we are all the time using hyperbole, and we speak of "educate" when we mean simply "teach" or perhaps even that lesser matter, "instruct." This proposition—that equality of opportunity in education is a democratic ideal—employs the word "education," not the word "instruction." Equality of opportunity in instruction would soon paralyze the world with two surfeits of the uniformly taught and of the rejected. Some of us think that we have too much equality of opportunity in instruction now. Inequality and variety of opportunity in instruction, properly adjusted to individuals, produce equality and uniformity of opportunity in education.

Education, of course, aims to produce the free man. Now the free man is the one who best knows the absolute laws and best obeys them. I speak of the laws that govern nature and human nature, without shadow of turning, not of the statutes and customs and fashions of the times. To become free a man must see and hear, know and obey the laws: he must be intelligent, efficient and moral. Some are born dull and apathetic but obedient: others are born bright but careless and disobedient. No uniform instruction deals honorably with all kinds. I know a man by nature of extraordinary persistence and concentration, energetic, thorough; but entirely unobservant and actually enslaved in a narrow morality in consequence. When he got out into life, he found it a hard school. Why? Because, though tremendously taught, his good qualities were bound about and into him until he became blind: he is like a steam locomotive, traveling a route of fixed rails. His soul cannot see through the steam that he leaks at every joint. He needed education in intelligence and receptivity. Of kindergarten, of nature-study, of drawing and music, of science and art, he was taught nothing. He lives in an immense world of his own creation, unlike the real world of men and of things. And I know another man, wide-awake to the world, a delight in conversation, but at sixty years of age he has yet to do anything or be anything of any value. All his sowing has been of the tares. He is a toggler with tools, a dabbler in business, a dilettante in art, too busy to think and to work. When a youth naturally spells correctly, remembers everything that he reads, imitates and emulates artists in English, what is the use of drilling him in language and literature and history? My own answer is: find the deficiencies and develop them.

I have now reached a stage in the argument that, perhaps somewhat fancifully, I call the conclusions.

There is no such thing in reality as industrial education or religious education or commercial education; but there is such a thing as commercial instruction, another such reality as industrial instruction and another such verity as religious instruction. And all these are absolutely necessary phases in education. In other words, I hold to the ancient theory that there is but one kind of education and that it consists not in following bents but in straightening them out. It is obvious that I am contemplating here no short and easy road but a long and hard one. Souls seem to be born into the world at different ages; or, if you prefer, stages. I would educate them all forward or outward or upward.

It must be clear, upon the face of this presentment, that to me an education that is not characterized by the development of capability of earning a livelihood seems therein not complete. Equally must it be clear that the mode of livelihood must be taught. Again, it must be clear that youth should stay at school until competent to perform a worth-while part in life. Moreover, the livelihood must be taught prior to any attempt to teach morality, to which it is an essential condition precedent. I am speaking of that sufficient morality which equips one adequately for the affairs of daily life.

And now to return to an earlier stage in the argument. Democracy is not merely a matter of the control of government by the majority or plurality, expressing its opinion in stated elections, though we have not even so much democracy as that. It is the operation of society in every respect—property, family, religion, government, education, occupation, culture, charity, even business and war—by the people for the common good.

Choose ye men to rule
In every needful faculty
In church and state and school,

was the way in which Emerson phrased it. But even his remark does not go so far as democracy, for that denies the right even of representatives or delegates to rule. Obviously, if in some future state of society the people as a whole are to govern in all things, a safe majority of them must be educated persons, lest, being blind, they plunge society into the ditch. This platitude is not yet a commonplace nor is it a principle honored by sincere observance. The natural evolution of society is bringing us into democracy; and education must proceed with equal step.

Democracy will say "to each according to his need" in education and will respect the individual, learning his powers, his interests and his needs. True democracy is by no means blind to the present economic inequality of men and resents any proposition that material fortune measures merit. It resents also the proposition that we are to apportion educational opportunity according to merit. Almost the exact opposite is true. Democracy is no more afraid of pauperizing children by educating them all equally in the best possible manner than is the father of wealth and culture. When the spirit of democracy has won over an effective majority of mankind, cost will not be a factor in education. Do not at this point say, "Oh, this is idealism, it is even ideology." I am not advocating anything, not even this. I am talking about a stage of society into which we are traveling.

It has been suggested that we can reach this goal of equality of opportunity in education in either of two ways: By developing a variety of schools each in subordination to one of the major social institutions. Labor and occupation will develop trade and craft schools; capital and property will develop economic schools, teaching, the conservation of wealth; state and government will develop schools for citizenship; church and religion will develop schools ecclesiastical and parochial; home and family will undertake instruction in pedagogics and in domestic science and art; business will produce bookkeepers; war, soldiers; charity, philanthropic workers. Let each youth choose what he will. But this is note quality of opportunity in education; it is simply free choice of opportunity in instruction. I need here merely to mention the fallacy of the device of election. How can youth know, being yet ignorant?

The other way to present equality of opportunity in education to all is to create the school as an integral, independent, universal, self-supported social institution. Our eastern states in 1787 gave away their western lands. Our later states have sold most or all of their school lands. What endowments the school might have had! That easy mode of creating the independent school is no longer available. A few cities in Arkansas, I believe, and a few other cities here and there elsewhere, have done what hundreds might have done.

But I am proceeding beyond the bounds of my assigned topic. We have not yet tried democracy. It is a stage on the road toward Christianity, which likewise, as a people, we have not yet tried. In our lower mood, Christianity appears incredible; as a social state to be arrived at by journey from the present, Christianity does indeed appear incomprehensible. And yet that law will be fulfilled before heaven and earth pass. If some thousands of years hence a curious antiquary digs up our American debates about the propriety of equality of opportunity for all in education, will not our posterity say with sadness, "Oh, ye of little faith: your leaven has indeed at last leavened the whole lump"?

In our age children and youth may be neglected in city tenements and in lost country places, deceived and defrauded in many cities and towns; but it will not always be so, for the destiny of mankind includes the discovery that the Father wills that not one of these little ones shall perish, and this means nothing less than complete education for all. Democracy may propose equality of opportunity in education: Christianity proposes certainty of complete education.

There is comfort only in the wide survey and in the long search. The vanguard line ever widens and the course of history is forward. The class of the so-called "fortunates" die out from generation to generation. We are the offspring of the neglected workers of past ages. And from this fact we are taking the lesson, for we are learning to educate not away from work but into work.

By as much as mercy transcends justice yet includes it, by as much as love transcends sincerity yet includes it, by as much as grace and charity and faith transcend diligence and courage and knowledge and yet include them, by so much does Christianity, which is personal love, transcend democracy, which is social righteousness. We cannot accurately forecast future social states: no more could Washington and Franklin, Madison, the Morrises, Hamilton, Mason, Wilson, Gerry, forecast the social state to which they contributed so much. But in the light of history we are entirely safe in saying, nay, we are honorably obligated to say that the new ages to come will surpass in their measures of justice, of freedom, of love between men and men, any dreams of present seers. In history, the outcome always demonstrates the folly of cynicism and the wisdom of faith. As Edwin Arnold said:

> Shall any gazer see with mortal eye,
> Or any searcher know by mortal mind?
> Veil after veil will lift, but there must be
> Veil upon veil behind.

EQUALITY OF OPPORTUNITY CAN BE SECURED ONLY BY A SYSTEMATIC RECOGNITION OF INDIVIDUAL DIFFERENCES IN NATIVE CAPACITY AND IN PROSPECTIVE CAREER

KATHARINE E. DOPP, LECTURER ON EDUCATION, EXTENSION DIVISION, THE UNIVERSITY OF CHICAGO

That there are individual differences in native capacity is a fact familiar to all ages. Plato makes Socrates say,

> Citizens, you are brothers, yet God has framed you differently. Some of you have the power to command, and these he has composed of gold; . . . . others of silver, to be auxiliaries; others again who are to be husbandmen and craftsmen, he has made of brass and iron. . . . . And God proclaims to the rulers . . . . that they should watch over their offspring, and see what elements mingle with their nature.

The truth of Plato's story is readily perceived. There are individual differences in native capacity, and these differences appear in the same class of society and in the same family. The error is the idea that officials, appointed for the purpose, will be able to detect these differences with sufficient accuracy to classify children into three groups. Biography is replete with instances of mistakes on the part of parents and teachers in estimating the capacity of the young. Who can tell whether the precocity of childhood is the light of genius or the early flowering of a life whose energy will soon be exhausted? Who can tell whether the apparent stupidity of a child is the result of slight capacity, the lack of opportunity, or the slow growth of a master mind? Who can tell whether a predilection for mechanics is an indication that the child has the promise of great mechanical ability, or that it is the natural expression of growing nerves and muscles through the media at hand?

It is to be hoped that some day we shall be better able to interpret the capacity of the child and of the youth than we are at present; but until the sciences which underlie this knowledge shall be developed to a far greater extent than they are at present, we shall do well to refrain from mortgaging the child's future on the basis of our superficial judgment. Too often differences in capacity, as they are manifest in later youth and in mature life are less differences in native capacity and in aspiration than differences in the means for their realization. Capacities may lie dormant until there is something which calls them forth.

Nor are we better able to determine a child's future vocation. The biographies of great men contain abundant material to show the folly of parents in attempting to select a vocation for a child irrespective of his real fitness and inclination. Vocation can be determined only as opportunities are provided for calling forth and developing capacity. The best that can be done by parents and teachers is to furnish an environment which will call forth capacity and furnish copies of typical vocations in the larger world.

While freeing ourselves from any implication which might interfere with the solution of the problem, we are not justified in freeing ourselves from the limitations of the more general topics of this session. In the light of these, our problem becomes that of determining the place of industries in an education which shall secure equality of opportunity for all.

A teacher, visiting a school in one of our larger cities a few years ago, asked to see the industrial work, whereupon the supervisor replied, "The children in our school come from the homes of the wealthy; we have no need of industrial training." The attitude of this supervisor is typical of that of a large number of people who see in industrial training only a preparation for a specific trade. The more thoughtful people, however, regard industrial training not so much as a preparation for a specific trade as a means of securing the all-round growth and development of the child. Perhaps to a majority of those who believe in the educational use of industries, this training is to be secured by adding well-graded lessons in cooking, sewing, and woodwork to an otherwise formal curriculum. To others the function of industries is more thoroughgoing, more comprehensive. The best educational use of the industries is more than the teaching of a trade; it is more than well-graded lessons in manual training and domestic science; it is more than the formal education given through the use of books. It embodies the best elements of them all, supplementing and reinforcing them wherever necessary, and placing them as the central figures in a rich background of subject-matter. And just as the occupations from grade to grade should be such as to give the child the opportunity to face the practical problems of invention and discovery which lie back of the processes of modern life, so the subject-matter should give him the history of these inventions and discoveries, the simpler steps in the evolution of the sciences and the arts, and their intimate relations to industrial and social life. In short, the best educational use of the industries would develop, on the one hand, individual initiative and control, and on the other, an appreciation of what our civilization has cost.

That this ideal is not fully realized in even our best institutions is indeed true; there are difficulties in the way and it will take time to remove them; but beginnings have been made and, tho inconspicuous at present, like the leaven hid in the three measures of meal, they will in good time leaven the whole lump.

"The rivalry of patterns," writes Professor James, "is the history of the world." In this happy expression we can catch a glimmer of what may be the method of working out the higher educational ideal. Under the stress of the conflict between the ideas of trade and formal education, the weakness and strength of each will appear; each will be forced to incorporate the best elements of the other; each will be compelled to reach out for a richer sustenance than either now commands. And through this conflict the people generally will become conscious of that which is already clear in the minds of the best educators. They will then understand that such a conception of a trade school as prevails at present for the periods of childhood and early youth is shortsighted and destructive. They will see that the children who are limited to a training in one trade or fragment of a trade do not develop their capacities to the same extent as those do who have an opportunity to deal with a greater variety of materials and processes; they will see that the young people who enter a trade with this meager equipment have an inadequate outlook upon life, and that they soon lose heart and fail to advance. Such observations as these, in time, will force people to see that to limit a child to such an education is to consign him to dwell in the darkness of a cave when, with better opportunities, he might have dwelt in the light of day.

Those interested chiefly in the output of our manufactured products may rejoice for a brief season in a slightly increased skill; but if there are any truths to be learned from history and from daily experience, their joy will be short-lived. There are human as well as material factors which enter into the problem. These must be reckoned with. For when the vitality of the people—the chief glory of our nation—is once sapped, how can we hope to excel in industry?

Surely the quality of human life is as valuable an asset as the immediate profits of any class; surely it is as much the business of the state to conserve the vitality and moral energy of its people as to protect its natural resources. What shall it profit this nation if, for a brief season, it commands the markets of the world and loses the health, intelligence, and moral fiber of its people? How can we hope to secure stable conditions in society if large numbers of the people are ignorant, miserable, and discontented? Surely we are living at too late a date to follow the policy of "after me the deluge."

In contrast to the idea of trade schools we have our great system of public schools—a system which, with all its defects, outrivals that of any other nation. But we cannot afford to rest upon our laurels; there are new battles to be fought, and there must be a long, patient process of quiet building before they are won, before our educational structure is shaped to meet modern demands. The formal education still largely prevailing in our public schools gives such exclusive attention to the key of knowledge that it fails to notice whether the child is able to use the key. In the attempt to teach the child *how* to read we fail to notice *what* he reads; and frequently he leaves school either with a distaste for books, or with a taste for only those of a trivial nature. The emptiness of much of the time spent in the school in comparison with the fullness and richness of life out of school, is the secret which lies back of many a case of truancy and of leaving school for work.

The strictly formal school on the one hand, and the narrow trade school for children on the other, are thus two horns of an ugly dilemma. On the one hand we have the barest formalism parading under the name of a general culture, and, on the other, we have the barest sort of a training in technique pretending to stand for efficiency in industry; on the one hand we are feeding the child on the stale crumbs of knowledge, and, on the other, we are training his fingers to act in a mechanical way. And just as the supporters of a formal education regard the entrance of the industries with suspicion, fearing that they represent a materialistic spirit, so advocates of a trade education openly oppose the admission of anything into the curriculum which smacks of culture.

But why should we accept either horn of this apparent dilemma? Why not try to get nearer the truth? Whether we are advocates or opponents of culture for the masses, would it not be well to inquire more closely into the real meaning of culture? Whether we are advocates or opponents of schools for children in the interests of efficiency in the trades, would it not be well to call to mind what real efficiency includes? The apparent opposition between the ideals, efficiency in industry and culture, between trade and formal education, which came out in a startling way in the January meeting of the National Society for the Promotion of Industrial Education, is founded upon misconceptions. The idea that labor is degrading—an idea which has survived from barbarous times—is nourished and strengthened in the minds of young people by our elementary and high schools as well as by our professional schools and colleges. The superficial idea of culture prevailing—the idea that it is some particular knowledge of hi[illegible]y, literature, or art, in the exclusive possession of a favored few, who are esteemed chiefly for the fineness of their apparel and their abstinence from all forms of manual work—is an idea equally pernicious in its influence. It is such ideas as these which befog the mind and direct it away from the real issue. It is such ideas as these that are strengthened, also, by the striking contrasts between the conditions which surround the industries and the professions. It is needless for me to recite these conditions; they are familiar to all who would know, and it is their influence far more than that of labor itself that is affecting the judgment of all. On the other hand, it is the idea that to show one's self cultured, one must show one's self non-productive that is largely responsible for the spiritual bankruptcy of the leisure class.

It is not our work so much as our attitude toward it which determines whether we are cultured. The washerwoman may possess more real culture than the wife of a congressman. The village blacksmith may be more cultured than a railroad magnate. It is not the subject but the way that it is treated that determines whether it is a culture subject. Those men who are raising their voices in the attempt to prevent the dissemination of culture, cannot, I believe, be opposed to real culture, but to the formalism masquerading in its name; when we are willing to admit that practical experience in an industry accompanied by the mathematics, the science, the history, the literature, and the art which is vitally related to it, is as good a means of culture as can be found, one of the greatest differences between contending factions will at once be eliminated. When public-school advocates who oppose industrial training for all, once realize that individual efficiency and control are absolutely dependent upon personal experience, and that the appreciation of the accumulated wisdom of the ages must be purely external unless founded on experience, then those who are now ranged in hostile camps will unite forces in a common cause. It is thus that the "rivalry of patterns" works to produce a higher type.

During the formative period, then, the function of industries in education is that of developing capacity and helping in giving something of an outlook upon life. This is all very well for children of the well-to-do classes, it may be said, but what is to be done with the children of the poor? Where such children are found they must be dealt with, and they should be dealt with in the wisest way. Experience should have taught us the folly of allowing children to grow up without a training. Children must be educated. It is the only safe course, and it is the most economical one. But who is to stand the cost? It certainly would be a wiser policy on the part of the state to bear the entire expense of rearing dependent children, and children of very poor parents, than to let them go uncared for; the history of human progress seems to indicate, however, that the first attempts are generally made by means of private enterprises. If it is thought that the receiving of aid will tend to sap the spirit of self-reliance, why is it not possible to establish large loan funds administered through some such agency as that of the Juvenile Court. Although the difficulties in this case are greater than in the case of students' loan funds, they are not insuperable, and we may hope to see a satisfactory system evolved.

When the period of specialization has arrived, when the youth is ready to enter upon the preparation for his special vocation, industries which have hitherto occupied a dominant place in a general education must give way to more specialized interests. At this time the young people who are planning to enter the professions have little difficulty in finding schools that will give them the requisite training. Not so the young people who are planning to enter the world of industry. It is for this reason that many young people are compelled to get their training in the work itself. The schools, dominated by the ideals of the professional classes, have given little heed to specialization in the industries. And just as the elementary and high schools have persisted in clinging to an empty formalism, disregarding the interests of practical life, so the special schools which have been established are chiefly those intended to promote the ideals of the professional classes. The time is at hand, however, for a recognition of the demands of industry, for a recognition of the demands of the people who engage in manual work. It is just as much the business of the state to establish schools for specialization in all departments of industry, as it is to establish schools of law, medicine, and warfare. And we may expect within a few years to see great progress in this work

Not till the children of the working classes receive as liberal an education as those of other classes, not till technical schools are established on as high a plane as the professional schools, can it be said that there is equality of opportunity for all.

DISCUSSION

Foster H. Irons, supervisor of art and manual training, Public Schools, Superior, Wis.—The first paper by Dr. Chancellor took up the "Equality of Opportunity in Relation to the Ideals of Democracy," and stated that individual freedom in the face of great social institutions was the result. This individual freedom means confidence in the ability to use effort. Those of us who are acquainted with the cause of this discussion from the standpoint of the teacher know that the reason why the majority of the boys leave school is because of lack of confidence in themselves.

The second paper by Miss Dopp takes up "Equality of Opportunity in Relation to the Individual;" that is, in relation to the child. In this discussion, native capacity concerns what the child is; and career, what the child is to be.

Let us look at some of the practical demands that have brought about this discussion. But 4 per cent. of the children that enter school finish the course at the present time. There are 25,000 children in Massachusetts alone whose lives are failures because they left school early. Everyone of us could give a list of names of children who have left school whom we might have kept in school if we had given them work that appealed to them.

These are some of the demands for trade instruction if we are to give equality of opportunity to all our pupils. We are taking the business man's standpoint to produce a product that has a market value rather than a shelf value.

What is the solution of this problem:

First, those courses based entirely on future career; trade instruction.

Second, manual training attached to the curriculum.

Third, manual training that has an organic relation to school and life.

Stating this in pedagogical terms, the first two are based on subject-matter, the last is based on the child In our public-school system, we must in the beginning base the work entirely upon the child and his native capacities or instincts. His future career is at zero at the beginning of the school life, but gradually increases until it is the largest factor at the end of his school life.

We have been working for years to get the public and boards of education to understand the educational value of manual training. If we are not careful the establishment of the trade school with its practical results will work against the manual training for educational value, because it is a condition so much easier to understand by those not versed in the knowledge of mental development.

Equality of opportunity in the elementary school is based on individual differences—the differences of mind. Native capacity at this point means native instinct. The child is interested in those things in which he is confident of himself. Don't let us forget that the eyes and other senses are the industrial tools of the mind. Industrial training means seeing more things clearly. Professor James speaks of the fringe of consciousness. Let us see to it that there is not too much "fringe."

Equality of opportunity in the secondary school means giving the child an opportunity to find himself. We must bear in mind the native capacity, but the emphasis must be on his future career. Native capacity and future career can be taken care of in the elementary and the high school by courses in manual training used as a laboratory method.

The trade school is a distinct problem. It is in relation to the boy who leaves school, the boy our present school system does not take care of. He must have an independent school. If he leaves school before the completion of the eighth grade he is still a child and can only do a child's work. It would seem that the beginning of trade instruction should be at the close of the eighth grade.

The quantity of work in the high school has a close relation to this problem of keeping boys in school. The child is at an age when his excessive physical growth may interfere with his mental growth. If a boy loses confidence in himself he is lost. The high-school work should be so elastic as to let up on the boy during this period, but keep him in school until he regains his confidence.

To sum up: Equality of opportunity gives individual freedom, and means confidence in ability to use effort and overcome difficulties. The problem of the elementary school is that of the child and his native capacities or instincts. It is the place for the teacher to find the child. The problem of the secondary school is for the boy to find himself, the emphasis being on future career. Industries find a place in this education as a laboratory method of manual training. A sufficient amount of manual training in the grade school to give full play for the constructive instincts would reduce the demand for trade instruction. The trade school is a distinct problem demanded by social and economic conditions. The safe place for the beginning of the trade-school work is at the close of the eighth grade.

DIFFERENCES AMONG VARYING GROUPS OF CHILDREN SHOULD BE RECOGNIZED; AND THE PERIOD AT WHICH THIS RECOGNITION TAKES PLACE MAY RATIONALLY CONSTITUTE THE BEGINNINGS OF SECONDARY EDUCATION

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In this discussion we assume (*a*) that American education aims to be democratic; (*b*) that it therefore seeks to give, within their personal and social capacity, equal opportunities to all; and (*c*) that equality of opportunity can only be secured by recognition of differences which, theoretically individual, may nevertheless, for practical purposes, be regarded as characterizing distinguishable groups of children. In addition, the writer makes the following assumptions: (*a*) The weakest part of American education, for many children, is that covering approximately the period from twelve to sixteen years of age —the last two grades of the elementary school, and first two of the high school; (*b*) The fixing of the elementary-school period as eight years in length is not rationally defensible, but is one of the incidents of the development of American public education from below up; (*c*) Of the very large percentage of children who leave school at from fourteen to sixteen years of age a large part require, during their last two years in school, a very different educational program from anything now offered them in the traditional courses; and (*d*) During the period between twelve and sixteen it is possible to give a very considerable fitness for vocational pursuits, even tho such preparation cannot be specialized so as to dispense, in any marked degree, with the usual apprenticeship period, but that it can aid in the selection of a calling, and the right industrial or other vocational training will give a body of useful experience and habits.

It is the purpose of this paper to discuss the questions: (*a*) What are the group differences that should be recognized as a basis for differentiation, and therefore, for secondary education? (*b*) Where should differentiation begin? (*c*) What should be its character? and (*d*) What are the conditions of its administration?

GROUP DIFFERENCES AS A BASIS OF DIFFERENTIATION

Three kinds of differences are recognizable among children with reference to the extent and kind of education which, in the secondary stage, they should receive. These are based on (*a*) native capacity, including strong interests and tastes; (*b*) economic conditions of the family and its capacity to support the child during the period of its higher education; and (*c*) probable educational destination.

a) Our measures of native capacity are yet crude and uncertain. But practically we keep large numbers of children back in grades because of inferior ability to do the work required, or for lack of interest in it. In the early years of the high school we practically exclude large numbers because of lack of capacity. Parents are constantly removing children from school because they are convinced that such children can no longer derive profit from further study. It is now suspected that, in the case of many children, apparent inability may not be so much native as due to bad pedagogical methods; or that it may in many cases attach to certain school subjects and not to others, particularly where, as in the case of foreign languages, no social premium seems to be put on their study. Again, it is not improbable that apparent native ability may be connected in some way with pubescence, so that the seemingly dull child may gain in ability after the change in life, or, vice versa, the precocious one lose. But even under present conditions of uncertainty, it is possible to recognize various groupings of capacity, and it should be possible measurably to predict the future educational career of a large majority of children after they have reached the age of twelve. There will be those who probably cannot finish the elementary course; those who will have no sufficient capacity to enter or stay in high school; those who have not the qualities for business; those who have no interest in manual art, etc.

b) Sufficient attention has not yet been given to the conditions under which the economic status of the family affect the educational careers of children after the age of fourteen. The majority of the people of the cities are wage earners; the family income is not large; to keep a child in the high school costs the family from $200 a year up; and if there are several children, the pressure to have the older ones relieve the burden is very great. It is well known that among manufacturing peoples a very large proportion of the children enter employment early. This does not preclude the fact that often a boy or girl of exceptional capacity for school work will be kept at school at considerable sacrifice by the parents if it clearly appears that such sacrifice means ultimately the marked success of the child; but these cases are not numerous. It is not in evidence that the school authorities have studied, in connection with the large withdrawal from school at the age of fourteen and during the early years of the high-school period, the economic condition of those who thus withdraw. Undoubtedly large classes could be found in which such withdrawal is a necessity, quite apart from the question of the ability of the pupil. It is highly probable that at the age of twelve or fourteen it will be found that a sufficient number of children are obliged to prepare for early entrance into industry to justify consideration of their special educational needs. At any rate this should be regarded as a basis for group differentiation of opportunities.

c) Present educational practice differentiates between boys and girls in the provision of manual and domestic work in view of their different educational destinations. In a few cities special high-school preparatory classes exist for children who, at the age of twelve, obviously are qualified and intended for high-school work. In reform schools and various other types of special schools, children at the age of twelve or later receive a kind of education suited to their probable future needs. In the American secondary schools as now organized some opportunities for specialization are offered to those who wish to take up commercial work, to prepare for college, etc. But in the main, American education, unlike that of Europe, refuses largely to take account of the probable educational destination of its pupils, especially those under sixteen years of age. The reason for this exists in the general tradition of the democratic character of American education, but it actually operates, as we believe, to render such education undemocratic. At first it would appear that differentiation of education according to educational destination could only affect vocational training; but a study of the conditions of life will show that the cultural and social needs of varying groups must make different demands upon the kind of cultural and social training given. The cultural and social training of children who must enter into industry at fifteen should for the years from twelve to fourteen be in many respects different from that of those who are probably to have a high-school and college education. Furthermore, there are excellent reasons for believing that cultural and social training should be in some degree correlated with vocational training, to the end that each may be most effective. But this is impracticable unless the educational system provides for several possible goals and organizing education for youth from twelve to sixteen.

THE BEGINNINGS OF DIFFERENTIATION

With few exceptions, American elementary education assumes uniformity of course for all children thru the eighth grade or approximately thru the fourteenth year. Nowhere else in the world do we find similar practice. But it is well known that much more than a majority of the children in the public schools either do not complete the eight grades or do not go beyond them; and all of these may be assumed to quit school as soon as the law allows. Because during the last two grades no specialization has been permitted it has proven difficult to make anything of the vocational subjects like commercial arithmetic, accounts, manual training, and domestic arts that have been introduced; nor, on the other hand, has it been practicable to make the beginnings of algebra, geometry, and foreign languages for those children obviously destined for a secondary education. The widespread demand for a six-years' high-school course indicates a call for earlier differentiation than is now possible. European practice in all countries makes provision for extensive differentiation at twelve or earlier. There can be hardly any question but that, by means of special courses, large numbers of those who cannot complete the grade work in our city schools could be better accomodated than at present. The time is ripe to recognize the following facts: (*a*) Secondary education should involve differentiation according to educational need, and this begins to manifest itself earlier than the traditions of American education have established; in fact, after the sixth grade, there should be allowed some opportunity for differentiation; (*b*) Whether or no we choose to call all of the courses thenceforward followed secondary or not, they should all be regarded as equal in the sense that each, for the class of children adapted to it, offers a first-class education, even tho some of these courses must terminate at the time when the pupils average fourteen.

THE CHARACTER OF DIFFERENTIATED COURSES

Obviously there must be strict limits to differentiation of courses in the upper grades of the elementary school and the earlier years of the high school, owing to administrative necessities; but it is clear that some account must henceforth be taken of vocational work as a factor in some of these courses. Opportunities for vocational training are becoming increasingly difficult in other channels of life than the schools; these must realize their added responsibilities. We may not here enter into discussion of the kind or degree of vocational training possible for children from twelve to sixteen. We may even assume for the present that specialized-trades training, or other kind designed to produce a considerable degree of immediate fitness for any given vocation is impracticable; but, on the other hand, we have abundant experience to prove that a somewhat general form of vocational training along several different lines is an entirely feasible thing. It is possible to begin at the seventh grade and give, along with an ordinary program of studies, considerable special training in commercial subjects; or in the use of tools, as found in the industrial arts; or in agricultural arts; or yet again, in the household arts for girls. Such training may be made very concrete; it may utilize actual vocational practices and economies; and it should give a large amount of habituation, intelligence, and ideals which, when specialized training comes later, will form a satisfactory background for the latter.

But again it must not be assumed that such vocational courses should be the only ones found in the program; we are assuming that they are offered simply for those who most incline towards them or have most need of them. In the elementary school, and the high school as well, should be found courses ministering exclusively to cultural ends. No more fundamental mistake has been made in the elementary school than in prescribing manual training for all children alike, once it has been introduced, and before its educational value had been fully ascertained. Vastly better would it have been to have established good courses in manual training, even to be taken four or six hours a week, for those who especially cared for that work. It would then have had some vital educational and vocational significance.

CONDITIONS OF ADMINISTRATION

Under ideal conditions the execution of the above program would require the general recognition of a six-years' high school and the abandonment of the last two grades of the present elementary course. Pupils completing the sixth grade, or otherwise qualified, would find open to them several courses so arranged that it would be possible for those probably quitting school at fourteen to receive in their remaining two years a maximum of preparation, but also permitting those who could look forward to a considerable secondary school and college career to make suitable beginnings for that. To a considerable extent all these courses would involve identical work in certain subjects, as English, history, and geography, the differentiation taking the form of alternative groups of remaining subjects, as (*a*) foreign languages and mathematics of secondary-school type; (*b*) natural science, music, art appreciation, etc.; (*c*) commercial subjects; (*d*) agricultural subjects (in the right environment to give these a true vocational significance); (*e*) industrial arts, perhaps differentiated according to locality and dominant types of adjacent industry; and (*f*) household arts. It should not prove a difficult matter to adjust these courses so that pupils leaving at fourteen would have received considerable profit, while for those who stay until sixteen a considerably more extensive development would be possible.

But, in case the six-years' high-school course appear too radical, it should be evident that by a slight differentiation of courses in the last two grades of the elementary school, that remaining just as it is, and the departmentalizing of some of the work, almost the same results could be accomplished. In some large cities these grades now assemble in separate buildings, the schools being called intermediate; and American education is not at all unfamiliar with departmental work and specialized teachers in the upper grades. If we increase and enrich the manual training offered, relating it closely to familiar types of production, and making it possible for certain classes of pupils to substitute something else for it, as foreign languages in the one case, or commercial subjects in the other, we shall have the proposed program in its essence. Already the beginnings of this are found in cities like Baltimore that maintain special high-school preparatory classes; and in those special classes for defective and delinquents found in some cities where specialized programs of study are prepared to serve particular ends in the training of children that do not fit the ordinary program.

Similarly, it would not be at all impracticable nor administratively difficult to provide in our large city high schools, in addition to the college-preparatory courses now maintained, at least one general culture course especially designed for children who will leave at sixteen; and other courses of a more vocational character, also of two years in length, embracing the lines mentioned above.

Finally, let it not be said that any such program as that contemplated above requires any sacrifice of the education which makes for culture or for effective citizenship. Rather I believe it will promote it. We too often forget the very meager degree of cultural education now realized for the majority of our pupils; we forget that one or two hours a day of the right kind of study by pupils interested in their education because it is vital to their needs may give much more of culture and civic training than we accomplish at present. We sometimes forget that with certain types of pupils and under certain social conditions the more effort we expend, the less we get in the way of educational result. We have not yet learned all the lessons of casting the bread of our educational efforts on the current of contemporary life, with its possibilities of larger returns.

INDUSTRIAL DEVELOPMENT HAS EXERTED A PRE-EMINENT INFLUENCE IN SOCIAL PROGRESS

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I realize that it is not possible to produce final proof of this thesis owing to the undeveloped condition of the social sciences. At the same time, it is desirable to examine the problem sufficiently to appreciate the fundamental part played by industrial development. There is a strong tendency to depreciate the value of industrial development in favor of political, intellectual, aesthetic, literary and religious influences. I believe that a study of the question will provide a scientific basis for a reconstruction of our ideas of values, and a consequent reconstruction of our educational practices.

Before proceeding with the discussion proper, it is necessary to determine the meaning of certain terms. In the first place, what do we mean by industrial? Realizing that the term is ordinarily used in several senses, I shall here use the word industrial to designate those activities of mankind which aim at practical control and utilization of the materials and forces of non-human nature. Industrial designates man's practical efforts to secure food and shelter, to domesticate animals, to raise and use plants, to obtain minerals and transform them, to master and utilize the forces of wind, water, steam, electricity, etc. It includes a vast variety of activities, from the simple process of the hunter to the most elaborate constructions of the mechanical and electrical engineer. It includes such inventions and mechanical devices as the phonograph, moving pictures, electrical machinery, the steam engine, the cotton gin, gunpowder, and the printing press. All of these are examples of man's practical mastery and utilization of the materials and forces of non-human nature. The aim of this paper is to show how fundamentally these have influenced human life.

The place of industries in history.—From the historical point of view, our thesis takes the following form. Of the manifold activities of human beings those classified as industrial have, in the long run, played a more important part in bringing about transformations in social structure than have any other class of activities. In order to avoid confusion in thinking, I shall first state what this thesis does not mean:

1. It does not exclude the extensive influence of other than industrial activities; in fact it implies such influence.
2. It does not maintain that the world would be at all like it is if the other activities had not existed.
3. It does not maintain that industrial activities have exerted a pre-eminent influence in every case, but only in the long run.
4. In short, it does not maintain that industrial activities constitute all of life, but that they constitute a large part of it and profoundly influence the rest.

As illustrations of the part played by the industrial factor in history I shall call your attention to some very familiar examples of its influence, beginning with those nearest home and proceeding to the more remote. As I am not an authority I shall mention the authors upon whom I depend.

Beginning with the United States the example that immediately suggests itself is the influence of the invention of the cotton gin and cotton-working machinery. Channing says:

> If the cotton gin had never been invented, it is not unlikely that slavery would have been peaceably abolished in the South in the first quarter of the nineteenth century. On the other hand, if slavery had been profitable over a larger area of the United States, that nstitution might have become so firmly established, it could not have been overturned.

Another very striking example is the influence of the development of means of transportation and communication, such as canals, steam transportation on land and water, electric traction, etc. Again Channing says:

> The development of these engines of civilization was destined to exercise an influence on the history of the United States far exceeding that of any political factor whatever. The political results that have flowed from the introduction of methods of cheap and rapid transit have equaled in importance the economic results.

A second familiar example is the influence exerted on the development of the English nation by the growth of the factory system and of mining, which followed the invention of cotton-working machinery and the steam engine about 1770. These were the direct causes of the democratic reorganization of the English government in the nineteenth century. Mr. Gibbins says:

> The growth of the factory towns created the political question as to the proper representation of such large masses in Parliament. The history of their progress toward the franchise is a matter for the political historian: the economist need only notice that the coal mine and the spinning jenny revolutionized the face of English politics as effectually as the guillotine changed the course of the politics of France. Amid foreign war and political disturbance, the miner and the weaver were shaping and changing the future course of the nation.

As a third example consider the relations between England and Germany today. It is almost axiomatic to say that the relations between nations at the present time are based largely on international competition in industry. While it is difficult to weigh precisely the elements entering into the structure of Anglo-German distrust, there is no doubt that the rapidity with which Germany is overhauling England in the markets of the world is one of the chief factors. One need only read the English quarterlies to appreciate this fact. While there is much discussion centering around the free-trade controversy, many students who have studied the problem thoroughly are convinced that at bottom it is a question of industrial efficiency. This is strikingly presented in a recent work entitled *Industrial Efficiency*, by an Englishman named Shadwell. As a result of a long period of personal investigation in England, Germany, and America, Mr. Shadwell gives us a vivid picture of the industrial conditions of these countries. He shows clearly the comparative deterioration of English industry, explains it as due to past prosperity and the resulting gospel of ease, and shows that the only hope for revival is in the stimulus of economic necessity which England is beginning to feel.

The influence of industrial factors in the history of Rome is surely familiar. The virtues of an agricultural people were largely responsible for its greatness, and the disappearance of the industrial conditions developing these virtues largely responsible for its decline. Professor Adams says:

> The causes of the fall of Rome may be roughly divided into two groups—first, the moral causes; second, the economic. The economic causes are more immediate in their action. When we turn to the economic causes we stand appalled at their number and variety.

Foremost among them were slavery and the resulting extinction of the free-laboring class, the free distribution of corn and the consequent disappearance of the small farmer.

As a final example I shall take Greece, whose glory and fate were greatly influenced by its industrial system. Professor Meyers says:

> The brilliant civilization of Greece was the product of slavery and never could have existed without it. Without the slaves the Attic democracy would have been an impossibility, for they alone enabled the poor as well as the rich (free citizens) to take part in public affairs

The effect of thus separating the higher class from industrial responsibility and aiming only at reflective and aesthetic attainments is thus expressed by Davidson:

> It may fairly be said that Greece perished because she placed the end of life in individual aesthetic enjoyment, possible only for a few, and regarding only the few.

I have given five familiar examples of the influence of industrial activities upon the development of particular nations. These do not prove our thesis. For this we shall need many researches of an exact scientific nature. But they do serve to make concrete such a statement as that made by Professor Bourne, that many a time a simple achievement in the development of industry has shaken the world with revolutions mightier even than the deeds of a Cromwell or a Napoleon.

How do the industrial occupations of a people influence its life and character? This is the second aspect of the problem. It is a question of social psychology. The answer to the question has been worked out by Professors Thomas, Dewey, and Veblen. Their general position is that occupations are the primary causes of variation in social characteristics. As Professor Dewey says, "Occupations determine the fundamental modes of activity and hence control the formation and use of habits."

Professor Thomas and Professor Dewey have presented the clearest case for their thesis in the example of the hunting occupation. They show how "in primitive life, art, war, marriage, etc., tend to be psychologically assimilated to the pattern developed in the hunting vocation." Hunting is characterized by attention to the immediate problem in hand, and intense emotional excitement centering around a personal conflict, which has in it a large element of chance and danger, and which requires alertness, promptness, keenness, strategy and skill for a successful issue.

The characteristics of the hunting people which result from their main industrial occupation are as follows:

1. The savage is characterized by keenness and alertness of attention. He is not dull, stupid or apathetic.
2. He will show great patience, persistence, and effort in anything partaking of the nature of immediate personal conflict, but not in the pursuit of remote ends.
3. His art is primarily dramatic and mimetic, not pictorial. It is made up largely of dances reproducing hunting movements and the behavior of animals of the chase.
4. His religion is characterized by totemism and abundance of plant and animal myths.

5. He thinks that sickness and death are the results of attacks by other persons who with strange weapons are hunting their victim to death.

6. His relations with women are characterized by personal display, rivalry, pursuit, conflict, and victory. The wife is treated as a trophy of the chase.

This sketchy summary of the position of Thomas and Dewey will serve to suggest the fundamental influence of the practical occupation of hunting in determining the other activities of the group.

Taking the extreme opposite of the simple hunting activity, Professor Veblen shows how the modern machine industry has produced the following results:

1. It habituates the workman to thinking in exact terms of material cause and effect. He tends to take an impersonal mechanical view of affairs.
2. It develops trade-unionism with its far-reaching influences.
3. It encourages socialism with its program of radical reform.
4. It makes it difficult for the workman to appreciate religious appeals based on grounds of metaphysical validity.

Taking up the question of the relative willingness of different classes of society to change their habits, Professor Veblen shows that it is in the realm of industrial activities that we find the strongest tendency to develop and adopt innovations, and that at the other extreme we find religious and higher educational activities as the most conservative influences in social life. Owing to the important and intangible consequences of religious attitudes it is essential that the old be thoroughly tested and the new thoroughly inspected before change. The ultra-conservative character of institutions of higher learning is proverbial. It takes but a glance at religious, educational and industrial activities to perceive how much more rapidly innovations are introduced and adopted in the industrial life.

What is the meaning of social progress? In our introductory statement, we distinguished between social change and social progress. Social changes are objective. It is comparatively easy for observers to agree upon the facts of change. But opinions will vary greatly concerning whether a given change marks progress or not. All unbiased observers would agree that concentration of population and growth of cities followed the invention of the spinning jenny and the steam engine. But many will see in the growth of cities the multiplication of evils, and, while admitting the change, will deny that it is progressive. Others who take a different point of view, will maintain that city activities have greatly enriched the life of man and see progress in the movement.

The previous discussion has been concerned primarily with social change. I shall now say a few words about social progress. I realize that I can not do justice to the topic in such a short time. The question is not only very involved, but being of a philosophical nature, the answer to it will be determined primarily by temperaments. "Tough-minded" people will think of progress in one way, "tender-minded" people in another way. In view of these facts I shall simply present very briefly four definitions of social progress, and try to determine under each one how industrial development contributes.

1. The first definition of social progress is in terms of the theory of evolution. A society progresses as it becomes more and more differentiated and the parts become increasingly interdependent. In other words, social progress is characterized by increased division of labor and increased organization for the attainment of common ends. Now if we compare the various kinds of human activity, it will be at once evident that this process is carried farther in the industrial field than in any other. This is suggested by the very term used to designate the process; namely, the division of labor. Industry is so divided that thirty-nine men are employed in the various activities of making one coat, and industry is so organized that goods are brought to our homes from all ends of the earth.

2. The second definition of social progress also takes the evolutionary point of view. It makes survival in group-struggle the criterion of progress. It maintains that if a group is fitted to survive, it is the superior group. In the historical part of our paper, we showed how the industrial factor played a prominent part in determining this group-survival, and hence contributed to social progress.

3. From a third point of view progress is measured by increased control over and utilization of the forces of nature. We are told in Genesis that God commanded man to replenish the earth and *subdue* it, and to have dominion over all the living things of the earth. Hence man is progressing as he increases his command over the forces and materials of nature. This makes industrial progress and social progress synonymous.

4. Finally, we have the point of view of the ethical idealists who would measure progress by increased self-realization. Society progresses as it provides increasing opportunity for each individual to develop his individuality. In this connection I desire to make three points:

a) It has been industrial development more than anything else that has provided the leisure to enable the masses to develop other than the industrial phases of their personalities. The Greeks may have emphasized individual development more than any other people but it must be remembered that this was permitted only for the select few. Industrial development is making it possible for most workmen to have four or five hours a day of leisure time for self-improvement and development.

b) Industrial development has done more than anything else to enrich the environment of the masses: this richer, fuller experience provides for greater self-development. Homely examples of this are found in the invention, improvement and manufacture of the printing press and more recently in the phonograph and moving-picture machines with their educational possibilities.

c) There is too much of a tendency to conceive of self-realization in terms of contemplative reflective existence, withdrawal from all practical contact with nature's forces. To read the ordinary interpretations of self-realization one would imagine that it consisted in the Buddhist ideal of a purely passive life. As opposed to this, we should realize that activity would represent the ideal with many people. I believe that the constructive instinct is more prominent in the great masses of people than the reflective contemplative tendency and that for these, self-realization would be in terms of constructive work and the active mastery of nature's forces. In other words, self-realization for the masses would be along industrial lines.

In conclusion, I desire to say a word about the selfishness of the industrial point of view. There is a tendency among some people to feel that they have answered all arguments for industrial development by branding it as materialistic and selfish. In general these same people would be in favor of a life of reflection and "learning for learning's sake." Now I suppose most people would agree that service or action for the common good is a high ethical ideal. Yet it is perfectly consistent to take this very advanced, very unselfish ethical position and to believe at the same time that it is industrial development that most contributes to the common good. It is just as easy to conceive of an Edison actuated by unselfish motives of service to mankind as to conceive of a Plato in the same way. Moreover, as Dr. Dewey says, any arrangement which develops an individual's capacities in construction, production, and creation shifts the center of ethical gravity from an absorption which is selfish to a service which is social.

DISCUSSION

Arthur S. Williston, director, Department of Science and Technology, Pratt Institute, New York City.—I am going to assume that the speaker who has preceded me has convinced you of the truth of the proposition that "industrial development has exerted a pre-eminent influence on social progress," and, therefore, shall spend the time that has been allotted to me in speaking on the larger topic of the afternoon, "The Influence of Industrial Development on Education."

Education is one of the most conservative of social forces and yields most slowly to new or outside influences. Its methods and its subject-matter change in response to the demands of social progress, it is true, but such changes have often followed a long time after the new conditions making them necessary have been well established. In Rome, three hundred years after the practical usefulness of facility in public argumentation or skill in debate had disappeared, as a possible means of defending either state of personal liberties, the schools were concentrating their greatest efforts on training designed to cultivate these powers. In the early periods of the Renaissance, when thought and interest were awakening to the joy to be obtained from life, as a reaction from the monasitc teachings of the church, thoughtful men turned back to the early civilization of Greece and Rome for material with which to fortify their new convictions. The term "humanities" was applied to their studies of ancient manuscripts, made for the purpose of strengthening these new aspirations for personal development and moral freedom. As soon as the influence of the monastery ceased, the purpose and usefulness of such study of course disappeared, but "the *humanities*"—which term came to indicate the study of ancient language and literature in a narrow and restricted sense—commenced to dominate the schools of Europe, and continued to do so until the middle of the last century. And in the schools of America at present, it is not difficult to trace the influence of the rural requirements of the agricultural communities of colonial days, when all education was planned to train either doctors, lawyers, or ministers, or else to give the mere essentials of the "three R's" to farm boys.

These illustrations serve to show how slowly and how imperfectly systems of education have usually responded to changed social or industrial conditions, and how methods and systems of training, when once well established, are wont to continue long after their special usefulness has ceased. But occasionally, when public interest has been sufficiently aroused, the machinery of education has responded more quickly. At the close of the Civil War, which created an imperative necessity for the rapid and extensive development of our country's resources, there were established agricultural and mechanical colleges in almost every state in the Union. And again, after the close of the French Revolution, industrial schools were started in all parts of France. There have been times, therefore, in the history of education when schools have responded promptly to industrial or social requirements, because of an awakened public sentiment.

At the present time, in many parts of the United States, there is a rapidly growing sentiment in favor of the kind of education which shall cultivate intelligence and character, and at the same time be directly useful in the daily occupations of life. We see here the two forces, illustrated by the examples that I have cited, contending with one another—the conservatism and the inertia of a traditional and well-established system contending with the demands of progress At the present moment it is difficult to predict how far the schools will yield.

Industrial, economic, and social conditions have changed so rapidly in the past few years that the need of a type of instruction which shall be more closely related to practical life has become for a large part of our population almost imperative. This fact is rapidly becoming recognized, and it is fast modifying educational thought. It is now acknowledged that education is a continuous process and that other things being equal the kind of thought and study in schools which are most likely to continue and have application in after life have the greatest educational value. The demand for school-training along the lines that shall be useful, therefore, does not spring wholly from utilitarian motives. It comes from the desire to meet in the best way both the *educational* and the *industrial* necessities of the very large number of persons, especially in the big cities, who must choose a vocation early in life.

As a consequence, thoughtful educators are asking themselves whether their schools are doing all that might be done to help boys and girls to get a good start in life, and whether there are not other subjects and other methods of training which will be quite as valuable in cultivating intelligence and character as those at present employed, which would at the same time increase the possibilities of obtaining desirable and profitable employment when the time comes to leave school. *Efficiency in the preparation for life-work* is the ideal toward which they are beginning to work. They look about and compare their efforts with the work of others in different fields and are amazed at the contrast. They ask themselves if a group of intelligent business men trained to appreciate efficiency in railroad management, or other practical affairs, accustomed to economize in time and effort in every possible way, would devise a system anything like the present system of elementary, grammar, or high-school training if they wished to prepare boys for useful careers in the different departments of the companies under their charge. And if they are candid they answer, "Most certainly not; provided they could be free from the traditional prejudices regarding education."

But just as soon as we commence to inquire how we may get the same degree of efficiency in education as we do in other affairs we are met with a number of difficulties. We discover that the school must assume a number of duties and responsibilities that it is not accustomed to concern itself with, but which are nevertheless essential to the attainment of the higher degree of efficiency.

First. The school must learn how to select boys and girls to enter those various callings in industrial commercial, or agricultural life for which their circumstances or natural abilities best fit them; and it must have trained experts who can do this work of selection with skill.

Second, It must be able to study and analyze the various industries for which it prepares young people with sufficient accuracy to predict what qualities of mind and character and exactly what kind of training will be most likely to prove essential to successful careers in these vocations; and it must be able to devise courses of instruction which will most certainly develop these necessary abilities.

Third, It must be able to watch the changed conditions of commercial and industrial life as closely as the successful business man watches his market, so as to be able to anticipate changed requirements.

Fourth, It must assist those who have completed its courses to get well placed in employment sufficiently profitable either in remuneration or in outlook, in order that the time and effort spent in training may not be wasted.

These are economic as well as educational considerations and are quite different from the usually accepted and preconceived functions and responsibilities of the ordinary school, yet they are what the present-day industrial and social conditions are demanding in a most forceful way of education.

THE INDUSTRIAL ASPECT OF SOCIAL LIFE AFFORDS A VARIED AND SIGNIFICANT BODY OF SUBJECT-MATTER WHICH IS AN ESSENTIAL ELEMENT IN A SYSTEM OF EDUCATION CONTROLLED BY SOCIAL STANDARDS

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The ideals of a people vary, and as they by slow degrees deeply and definitely impress themselves upon the hearts of the people, they, with unfailing certainty, influence the means that are used for the education of the people and the development of the national character. If the ideal be beauty in symmetry and strength of human body, athletics will be the means of education. If the ideal be skill in arms and conquest through warfare, a soldier's training will be the means of education. If the ideal be the traditions of a people, a constant conning over the things of the past and the glorious achievements of their forefathers will be the means of education. If the ideal be profound knowledge of the classics, a study of literature will be the means of education. If the ideal be achievements and discoveries in science, the laboratory will become the work shop of the school. If the ideal be the transformation of boundless stores of raw material into products that contribute to the needs and comfort of man, handicraft will be the means of education.

As Greece, Rome, the Orient, and Western Europe have in ages past had their several ideals, so America today seems to be coming into a clearer vision of an ideal of industrial supremacy. Only one other nation in the world has preceded her in the realization of that ideal.

Germany, a land of limited resources, a land lacking the fertility of soil with which our country has been blessed, forced to import much of her food supply, almost entirely without mineral wealth, a land hemmed in by countries with hostile tariffs and unfriendly trade relations, a land in the main without native artistic sense and devoid of the inventive ingenuity of the American, has, thru the persistent training of her children's hands, first in the homes and for the last half century or more in her public schools, reached an enviable position of commercial and industrial supremacy.

To this little nation America, with her vast resources of fertile stretches of land and inexhaustible mines of mineral wealth; with her boundless forests and unlimited water power; with coal and iron and limestone lying side by side with which to make easy the transformation of iron ore into all the products of the iron market; with marvelous water power in the midst of her cotton fields to transform the fleecy staple into all the varied products demanded by the world for clothing; with characteristic native ingenuity and inventive skill; with engineering ability that has removed mountains and made the arid desert to blossom as the most fertile plains; with the markets of the world open to her on all sides—America must take second place and be outstripped in the race for commercial supremacy by her less favored competitor. And why? True, we sent into the markets of the world year before last two billion dollars worth of products. Marvelous combinations of capital and aggregations of business skill greatly reduced the expense of production and sent from American factories an amazing output. Nature aided largely with raw material and wonderful power, and American genius gave splendid means of transportation, but with all this there was lacking one significant and important factor—universal manual skill on the part of the workers.

While from our fields there went into the markets of the world more than one million dollars worth of products, general scientific agricultural education could be credited with very little of this wonderful production. Only the premonitions of such education have been felt in the great West and Northwest, and in no degree whatever have the fields of the South felt that awakening of nature which comes from the quickening touch of general scientific farming.

And while our nation gave to the markets of the world one hundred million dollars worth of products from under the earth, there was lacking in this combination of business ability and mining engineering an equally important factor—universal skill of hand. Our factories, with marvelous power, cheap fuel and Yankee business ability, added to the commerce of the world seven hundred million dollars worth of manufactured products; and while American inventiveness in the production of modern and efficient machinery enabled us to produce these goods economically and well, skilled handicraft played almost no part in their manufacture.

Endowed lavishly with raw material, inventive ingenuity, business skill, and unlimited power, what might we not do in the commerce of the world if we had only followed Germany's wise example fifty years ago and put into our public schools everywhere manual training and industrial education?

Our forefathers unwisely based their aspirations for industrial supremacy upon a protective tariff, which was to foster infant industries and add profit to the capitalist in his competition with foreign nations. This protected the manufacturer, but failed to protect the people who were converting for him his raw material into marketable stuff, except in so far as it gave them employment.

While we were struggling upward under a protective tariff, Germany was steadily marching on to industrial supremacy under universal industrial education. Today we are waking up as a nation to the fact that we have made a mistake and today leaders of thought in statecraft, commerce, and manufacturing are beginning to realize that universal industrial education is far more important than a protective tariff.

Scientific child study, educational pyschology, and history are all good in themselves, but they are insufficient, singly and collectively, as a basis upon which to build a broad scheme of education that will meet present day needs. The school must become linked more closely to life and must prepare its students for efficient service in the life into which we send them.

I would not lessen one iota the cultural influence of the school, its noble work in development of character, the high ideals of conduct that may be placed before youth; but all this can be made a prominent feature of the work even of the school shop. My belief, based upon experience, is that the boy or girl working daily in the school shop becomes the more susceptible to these elevating and cultural influences of the school, becomes more interested in the purely academic work, and develops the more surely a strong stable character.

For a long time it was recognized and accepted intuitively by school men as a well-established fact that the state had lawfully and morally no part in the industrial training of its youth. And upon this assumption the introduction of manual training into school systems was bitterly fought by educators and the public generally, who believed that legitimate education consisted only in training thru the humanities. Manual training, however, finally gained a hold upon the public schools, first for its educational value, and later in some vague, indefinite way, it came to be recognized as a legitimate factor in school work for its economic value also. But only during the present decade, indeed, during the last two years, has specialized industrial training or vocational education come to be recognized in any community in the United States as a legitimate part of public education. The wisdom or legality of such recognition depends upon the view we take of the purposes of government.

Public education is a department of government or a medium thru which government expresses itself for the people. The education of all the children of the people at public expense has long been regarded as a legitimate function of government; first, that the government might not have ignorant citizens who would be in danger of becoming criminals; later, that the government might have a higher average type of citizenship and so develop a state in which its educated citizens might find a just pride.

It has perhaps been left for the latter years of this decade to bring out a more liberal view of the functions of government. Many statesmen and thoughtful citizens are beginning to realize that the full and complete purpose of government is not alone protection against crime and ignorance and pauperism, but that it is the full and complete development of all its citizens. It is not sufficient that school houses and churches be established in communities to supplant or lessen the need of jails and police protection, but there must be in the citizens constructive and creative ability to contribute to the wealth and general welfare of the community. The ideal citizen must be not only a person of intelligence and culture, but he must be also an efficient, economic unit.

Industrial education is today a prominent and popular theme, not only with educators, but with statesmen, manufacturers, and men of large business affairs. The President of the United States does not hesitate to declare it the most important problem of the public schools. The organization of the National Society for the Promotion of Industrial Education, composed largely of the great capitalists and manufacturers of this country, is significant. The prominence given to the commission for the study of industrial education appointed by the state of Massachusetts, not only in that state, but thruout the entire country, shows the trend of public thought on this question. The remarkable growth of industrial and technological schools everywhere indicates a widespread desire for this form of education in what they have been pleased to term practical subjects. More and more the school is becoming articulated with life work, and the fact is gradually being accepted that any work carried on in the school which prepares directly for intelligent and efficient service to mankind is legitimate, whether it be in the learned professions, in business walks, in manufacturing, in agriculture or in any form of industry.

Education should prepare for the activities of life, and if the dominant feature of the life be agriculture, education leading directly to preparation for that kind of life may properly be given in the schools; and when agricultural education is attempted in the schools of a certain section of the country it should be adapted to the particular needs of that section of the country. If it is found that a very large percentage of the children going thru the elementary and secondary schools find their bread-winning occupation in some form of industry, it is not only the privilege, but the duty of the community to prepare this large number of children for intelligent and efficient service in their chosen occupations. The aim should be not only to make the young citizen intelligent, but to make of him an efficient, economic unit.

Recent investigations conducted by the educational department of the international committee of the Y. M. C. A. demonstrated that of thirteen million young men in the United States between the ages of twenty-one and thirty-five, only 5 per cent. received in connection with their school education any preparation for their several occupations. It was also discovered that of every one hundred graduates of our elementary schools, only eight obtained their livelihood by means of the professions and commercial business, while the remaining ninety-two supported themselves and their families by the skill of their hands. If 92 per cent. of those who complete the elementary school course go into some form of bread-winning occupation where the efficiency of their service and their wage-earning power will depend upon skill of the hand, should not the elementary school seek to become more closely articulated with the life into which its graduates must go to find their livelihood? Add to these graduates the large number of those who fall out of the elementary schools from the fourth grade on, and we have a vast army of young people going into the bread-winning occupations with no specific training therefor.

In ages more or less remote, the ideal in education seemed to be to get a very small percentage of our young men thru college and university courses in order that they might enter the learned professions—medicine, law, and theology, and almost no thought was given to the vast majority, possibly 98 per cent., of the youth of the land who for one reason or another could not reach the end of a university course. There stood out before educators only these three goals toward which they urged on the more favored of their students in ability to do scholastic work. Indeed, it was often considered somewhat of a stigma to make so great a failure in school, college, or university work as not to reach one of these goals, and fall into the base occupation of trade or still baser occupation of industry. It mattered little what the young man's earning power was, or the efficiency of his service to mankind, if only he could become a limb of the law, a doctor of medicine or a young theologian. And if, after vainly struggling for several years, he could not earn his daily bread in one of these professions, he might honorably try school teaching. The less fortunate boy who fell by the wayside, and, donning his overalls, went to work at some industrial occupation, where in time his wages might amount to as much as twenty-five dollars a week, was looked upon with disfavor by the young man in the gentler walks of life whose "salary" was no more than twelve dollars a week. This increased earning power of the young man of overalls represents a higher degree of intelligence and efficiency of service to mankind in his industrial occupation, as surely as the lower earning power of the other represents the lower degree of intelligence and efficiency of service to mankind in the gentler walks of life.

The wonderful achievements in engineering, manufacturing, commerce, and agriculture are forcing the American people to regard these occupations as in every sense quite as highly honorable as the so-called learned professions. And the schools are coming to recognize more and more that those studies, even elementary studies, which prepare the youth for successful experience in these occupations, have as legitimate a place in the school curriculum as any of the humanities. In the earlier days industries and trades were often taught in the good old farm homes, not only to the inferior classes, but to the children of many of the best people of the country. Before the building of great cities and the vast network of railroads, the farm home often had its carpenter shop, saw mill, blacksmith shop, cooper shop, tannery, shoe shop, and many other industries; and the boys who had little schooling often had valuable training in these industries, and in the little world about the home they contributed for a term of years in some special industry valuable service that came from such crude specialized training.

And I dare say that such training had as much to do with the development of the men who in the larger cities, in after years, became leaders in commerce, in manufacturing or in statecraft, as any formal school training they might have received. I have in mind a man who belongs to one of the foremost families in the South and whose wise mother in such a home saw to it that not only he but that all of his brothers had special training in some one of these industries. His specialty was cobbling. That man, after reaching his majority, settled in a city of the South and is today its most successful banker and manufacturer, a man who is regarded by everyone as pre-eminently the first citizen of his city. The training that was given in this crude way in the old farm home should, in the passing away of these old homes, be given in the schools of the land.

The most hopeful sign in this educational renaissance is our growing willingness to break away from tradition. The social ideals or dominant life of a people must influence the schemes for education. Now that industrial America, with its governmental protection to the industrial, has been outstripped by Germany with its universal industrial training, we are being forced as a people to give serious study to the reorganization of our schools to meet the demands upon them for industrial efficiency; and this is a problem for the joint solution of educational leaders, statesmen, and captains of industry. Too many American boys and girls have been slipping thru the meshes of the elementary schools and going out to join the vast army of bread winners without adequate training. Many of those who leave the schools have a feeling, based upon observation of their bread-winning friends, that the preparation they are receiving in the schools does not give them earning power. The aim of the schools has been to develop passive living power, but living power without commensurate constructive earning power is un-American. The truly typical American is one who can wear overalls as gracefully as he wears a dress suit.

The problem of rural communities is that of adequate agricultural training for the masses of young people who should go into agricultural pursuits. The problem of urban communities today is that of adequate training for the masses of young people who must become bread winners in industrial and commercial pursuits.

DISCUSSION

Starr Cadwallader, superintendent of sanitation, Cleveland, O.—After all that has been said during the sessions today concerning the importance of industry in life and of industrial education, it seems scarcely possible to add anything which shall have significance to this audience from the standpoint either of the industrial need or of the educational program. But it has seemed to me that in this and other similar discussions the human point of view is not presented with the fulness which it merits. On the one side the subject is ably and technically handled. The difficulties and possibilities of including industrial courses in the regular school program are very skillfully set forth. On the other side the subject is also well stated. Statesmen, manufacturers, and others concerned about industrial supremacy, demand that the number of those trained to do things with their hands be very greatly increased. You, who are educators, have in the past accomplished the arrangement of a program measurably suited to the needs of various communities and I have confidence to believe that you will again succeed. I have also very great confidence that what the captain of industry wants for the advancement of his particular business he will get. But what of the great mass of school children of whom you have spoken? What will they get? Will they be able to attain a more comfortable, happy life, or will they become only more fit tools?

The subject for this particular part of the program says: "The industrial aspect of social life affords a varied and significant body of subject-matter." As to the industrial aspect of social life—you have all been proving that industry is at the basis of things. It is necessary to earn a living. You have shown that the methods of production and distribution determine, to a considerable extent, forms of social organization. True, changes in the methods of production and distribution have, within the last century, remodeled the forms of social organization. But the industrial process, the way in which industry is conducted, does not by any means comprehend the social life of a people. Industrial effects are quite as important as industrial processes. Industrial processes, which may be very effective in so far as the making of a product is concerned, may be absolutely detrimental to the life of a community

In the consideration of this subject, certain limitations have been overlooked. There are limitations within the school. We are pretty generally agreed that the public school has not, for a large majority of the children who enter it, the effect, the influence that it ought to have. It does not give them even the traditional kind of education. The short period during which the average child remains in school seems insufficient to attain this result. The difficulty may be in the child, in the method, or in the quality of teaching, but the fact remains that the success is not what it might be or what it ought to be. Now, if industrial courses are added, will the 92 per cent. who leave school after four or five years more surely be given an industrial training, sufficiently effective and valuable, than they are now given the traditional education? A portion of them, doubtless, will be benefited, but the benefit can scarcely be postulated for them all. There are also limitations outside the school. Suppose the 92 per cent. are given an efficient industrial training, that they become skilled hand workers, does any man or woman live in a community where 92 per cent. of the school children thus equipped could go out and tomorrow be certain of earning a living under existing conditions? A percentage of those graduated from the various schools now earn their living. The vital question for the vast number of children and the families from which they come is by how much the other kind of training will increase this percentage.

There is no longer much difference of opinion as to the method of school instruction. Apparently the wise educators have come to the conclusion that a child is not a receptacle, a passive instrument, or thing. A child is recognized as an active organism. He gains most of his knowledge as well as his general development, not by absorption but by activity. But I presume that for a long time the school program will provide for the transfer of information from the teacher to the pupil. Now in connection with the industrial training which is to give skill of hand, well-developed body, quickness of mind and eye, what information is to be given which will make this training a factor of social efficiency? It seems to me that there is a vast body of subject-matter of the greatest importance, which is neither touched by the present school curriculum nor by the plans proposed to develop manual skill. It can be provided for in that portion of the program set apart for the transfer of information from teacher to pupil. Food, clothing, and shelter are essential to life. The quantity and quality of these things attainable by the mass of people have a direct bearing on social efficiency. The real object of training is not, to my mind, industrial supremacy but human supremacy. The child is to be trained not so much that he may make more or even better things; but that he himself may more surely secure and more wisely use the means of life. It is important then that he should have information concerning the conditions surrounding the industries which he may enter. The hours of labor, the chances of injury or premature death, the chances of permanent or occasional employment, and the rate of wages in particular industries are all of concern to him, and should form a part of his instruction. It is important to instruct the child not only in regard to conditions in particular industries, but also in regard to community conditions. If certain industries afford some leisure, reasonable safeguards to life and limb, and a fair wage, the child should know what probability there is that the worker in these industries can, in a given community, obtain pure food, good clothing, decent housing, and wholesome recreation. Further than this, is it not the duty of the school to point out whether the best kind of industry for a child is to be found in the locality where he is? The school teaching, for example, should impress upon the city-born child, growing up under conditions which demand powers of endurance and resistance which his environment has denied him, the possibilities of life elsewhere.

Just a word in regard to industrial efficiency. It does not seem to me that industrial efficiency is synonymous with social efficiency. Industrial efficiency may be absolutely anti-social. It makes for a larger production of things, makes also for a better production of things; but social efficiency, as I understand it, makes for a larger and better comfort and happiness of human beings—human beings, all of whose time and energy is not consumed in earning a living, but a part of whose time and energy is released for the things of the mind and the spirit, developing right human relationship.

THE IMPORTANT FUNCTION OF CONSTRUCTIVE ACTIVITIES IN EDUCATION IS TO REVEAL THE SOCIAL SIGNIFICANCE OF INDUSTRIAL ACTIVITIES

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Modern industry, as compared with mediaeval industry, is characterized, in the first place, by its relation to scientific knowledge. Tested knowledge and high technical skill have taken the place of guess work and of the "rule-of-thumb" skill of our ancestors, and the result is a revolution in industrial processes. One after another of the sciences, mathematics, physics, chemistry, biology, geology, geography, etc., has put its resources of knowledge at the disposal of industry, and the result has been that these sciences have so far impressed their character that industries are now beginning to be classified according to the sciences which have been applied to them. Chemistry gives its name to one group of industries, biology to another, and various branches of physics to still others. Modern industry, in other words, is applied science.

But no less truly is modern science dependent upon modern industry. Great as is the contrast between mediaeval and modern industry in respect of its application of scientific methods and principles, it is no greater than the contrast of method between mediaeval and modern science. The typical mediaeval scientist was the alchemist, working alone and in secret; the typical modern scientist is the inventor, working on a grand scale and with enormous appliances. Not only is it true that modern industry is applied science;

modern science includes, in turn, enormous industries devoted to research. Only a few years ago the study of electricity could be carried on by a single man with a few Leyden jars; today an electric plant with its lines, whether of light or power, covers miles of territory and employs thousands of workers, and this is the form in which the modern student of electricity must study it.

The interdependence of science and industry characterizes them both, and they vitalize each other. To speak in a figure, the hermit Science has come out of his cell and married the drudge, Industry, greatly to the glory and usefulness of them both.

Another characteristic feature of modern industry, alongside its scientific character, is its social character. Like mediaeval science, mediaeval industry was distinctively individualistic. Every man for himself was still the golden rule which survived from primitive life. To be sure industry and life were far more socialized than before, but the social revolution made its vastest forward stride with the industrial revolution. The industrial reorganization of the past century involves a change in human relationships, and that change we call socialization.

And not less but more than industry has science become socialized. Modern science is social knowledge, impossible for the individual to acquire alone. What would any great modern scientist be by himself without the host of scientists and other workers, devoted men, toiling beside him to accumulate data and verify results?

Mr. H. G. Wells, in his illuminating book, *New Worlds for Old,* writes:

> The whole difference of modern scientific research from that of the middle ages, the secret of its immense successes, lies in its collective character, in the fact that every fruitful experiment is published, every new discovery of relationships explained. In a sense scientific research is a triumph over natural instinct, over that mean instinct that makes men secretive, that makes a man keep knowledge to himself and use it slyly for his own advantage. To "keep shut" and bright-eyed, and to score advantages, that is the wisdom of the common stuff of humanity still. To science it is a crime.

The medical profession condemns as a quack and a rascal the man who uses secret remedies. No sooner does a scientist make a discovery than he publishes it broadcast.

And still less is modern science capable of individual application. For example, a few years ago the world needed better artificial light. The discovery of Karl von Welsbach that thorium and cerium were brilliantly incandescent, when heated together, was not enough to furnish the light. A curious mineral called monazite sand has to be brought from Brazil and scientifically and rigorously purified; ramie, a China grass, has to be cultivated in India and in Italy to be woven into mantles; long-fibred asbestos, scientifically made in Belgium, furnishes the loop; the oxides of berillium and aluminum are used to vitrify the upper end of the mantle; and the label is painted on with uranium nitrate. The efforts of ten thousands of men are employed to utilize rare minerals which a few years ago were of interest only to academic science, and every night millions of people are benefited thereby.

No better illustration than this is needed both of the union of modern science and modern industry and of their social character.

Science, as well as industry, tends to develop the social consciousness, the realization—in spirit and in conduct—that life is social, that participation in the common life is the only life worth living.

In a word, modern industry is more and more distinctively scientific and science is more and more related to industry. They are interdependent. With science, industry shares the glory of being progressively social. Indeed it may be said that the most notable trend of modern life is the socialization of human knowledge and human activities and human relationships.

What then shall, nay, must, be the character of modern education in order to include an adequate appreciation of modern industry? If education be life in the making, it should in the first place include familiarity with modern science, and second, it should reveal the social significance of industry.

That the former of these requirements is being well if not adequately fulfilled is one of the noblest achievements of our educational system. The study of science in the schools is becoming pragmatic. The recognition of the interdependence of science and industry is going on apace, and the credit for this is largely due to the science teachers in our schools.

In addition to this we have begun to include formally the study of industries in our school curricula. Industry as a factor in education is a common subject for discussion in such conferences as this. As you are all aware, such study began, and naturally began, with the primitive industries, because they were the simplest of comprehension and afforded workable material for artistic expression. Of its high value it is not necessary here to speak at length.

The comparatively simple problem of teaching children how savages, colonists, and mediaeval craftsmen fed, clothed and sheltered themselves, we have solved with no little success. Not that our solutions are above criticism. Much work has been highly histrionic and some of it has perhaps contributed as much to the mystification as to the enlightenment of children. But undoubtedly the work has been an advance in the field of teacher-directed education, for, among others of its virtues, it has given to the child added materials and opportunity for self-expression and an insight into some industrial processes. On the whole, we have done well.

But this reproduction of primitive or mediaeval forms of industries in schools is a comparatively simple problem. The tools are small and inexpensive, the rule is the rule of thumb, and the work is individual. But modern industry is not solely nor distinctively muscular toil nor manipulation, but the harnessing and directing of natural forces to produce wealth. It uses gigantic tools, too expensive to fool with, its methods are the exact ones of science, and its units are armies of men, women, and children.

An appreciation of modern industry, therefore, involves not merely the understanding of its primitive forms and manipulation in them; it involves a more or less complete understanding of the principles underlying the harnessing and directing of natural forces. In a word, the more scientific information we can impart, the more we can cultivate the scientific spirit, the more nearly we are revealing the true significance of modern industry.

Such scientific study includes observation and familiarity with industrial processes. The village boy of a generation or two ago had abundant opportunity to observe all the common industrial processes of the day. The modern boy has no such opportunity.

A serious difficulty that confronts us in the attempt to reveal the social significance of industry is the system of secrecy and aloofness with which industry is carried on. The method of science, as we have noted, is open, free publication. Its symbol is the torch passed from hand to hand. The method of business is the trade secret, and its motto is plainly written on its doors: "No admission." Even the scientific expert has difficulty in finding out how much science is being applied to various industries. He is looked upon as a spy. And as for the ordinary man or boy who is curious to learn about industrial processes, he is almost entirely barred from any approach to them. Industry is protected not only by a tariff, but by trade secrets, which are locked up in safes and scrupulously kept out of public sight. It is only when a business is so firmly established that it is beyond the fear of competition that it can be generous. A notable example is the famous glass works at Jena. They publish all that is known concerning the making of glass and depend solely upon the excellence of their product to maintain their supremacy, a candor that seems almost incredible to those whose success depends upon the possession of trade secrets and private patents.

To open workshops to observation, and that not merely for the purposes of advertisement, would be an invaluable means of industrial education, and, more than that, would give to business some of that spirit of free social service that now characterizes science.

But to reveal the social significance of industry involves, in addition to an intellectual appreciation of its principles and methods, a *manual* approach, by which I mean actual participation in industrial processes as now carried on. In other words, either the workshop must become more like a school, or the school must become more like a workshop. The only way to learn to work is to work. This is no less and no more true of modern industries than of primitive or mediaeval industries. If it is important to acquire manual skill in basketry, pottery, or woodwork, in order to appreciate a handicraft, it is no less important, nay, rather more important to participate in modern industrial processes. This, I hardly need say, does not mean a mere repetition of a monotonous motion, nor deftness in guiding an almost automatic machine, nor the blind following of a prescribed chemical formula. It is such processes as these that constitute the sort of industrial education now actually given to child laborers.

Nor, on the other hand, can an adequate industrial education be obtained when industrial activities are reduced to entertaining simulations on a small scale. In the attempt to convert into individual playthings projects which are only socially possible, some of their meaning is inevitably dissipated. A make-believe world can never be a complete preparation for a real world.

Not for one moment would I belittle the educative value of making and working scientific and mechanical toys. It is a good thing for a boy to make a motor boat, as a part of his study of the principles of hydraulics and electricity. All amateur efforts, whether in electricity, printing, weaving, painting or photography, are, or can be made to be, educative; but educative play of this sort can, at the best, be only a partial preparation for educative work. In addition, actual participation in typical forms of modern scientific productive activity is essential to a complete industrial education. This is because, whether for good or for ill, man is educated by his work. That the modern man is a more social being than his ancestors is largely due to his industrial life. The participation in modern industry is slowly but surely transforming human nature, for a man is educated by what he does. The instinct of workmanship, the closeness of observation, the patient gathering of data, the readiness for innovation, the power to generalize, the ability to reason from cause to effect, in a word the scientific habit, which tends to carry with it the spirit of service, these are the spiritual offspring of the marriage of science and industry. The socialization of science and of industry means, in its ultimate consequences, a remaking of human character. Social service instead of private gain; the common good as indispensable to individual welfare; good will as the lubricant of human relationships; co-operation as the means of attaining fellowship: all these are ideals that modern industry tends to make real. Tends, I say, for modern industry, plainly social though it be in character, is hampered by business practices that stifle and crush it. Every useful scientific discovery and every advance in industrial efficiency are new warp threads shot across the woof of human relationships, binding men closer together. But constantly twisting and snarling these threads is the system of private business by which industries, essentially public in character, are owned and managed, not for public welfare, but for private gain and personal advantage.

We may as well face the fact that industry, altho it is more and more a social and socializing process, is largely turned into a means of private gain. This, moreover, marks still another contrast with the practice of science. As we have noted, business success depends primarily upon the spirit of private gain; science thrives on the spirit of public service, and so far forth the modern system of production for profit stands athwart the road on which science is moving, barring progress and exacting tribute.

The secretive practices of modern business not only thwart science, but the self-aggrandizement that characterizes them blasts moral character. The present business necessity for the spirit of greed to a great extent perverts the spirit of workmanship engendered by social industry. A fact that everywhere confronts us is the perversion of human character under the necessities of our present business system. Industry and science tend to make men social; business as conducted today tends to make them greedy and selfish. Ugly as the fact is, we cannot ignore it, for it is thrust upon our notice every day.

But, fortunately, neither this condition nor this state of mind can last. The logic of events is against it. The exploitation of what are in truth social activities for private gain is, I believe, a temporary feature of modern life. Science must and will proclaim its truths in spite of the censorship of modern business. Industry does and will more and more partake of the nature of public service, and cannot forever be harnessed to the chariot of swollen fortunes.

The social significance of modern industry is too great to be obscured, and the social trend of its evolution too strong to be perverted by private and personal advantage. The real meaning of modern industrial activities is their social meaning, however much this fact may be clouded by present-day politics or by private monopolies. To help reveal this social significance of industry, as well as to help create the social consciousness, is a part of the function of education.

How can this be done? In this discussion we are assuming almost without question that it is the function of the state to prepare its citizens for industrial efficiency. We have abandoned the idea that such preparation can longer be left to private initiative. The apprentice system is on its deathbed. Industry has reached such a highly socialized condition that it has become necessary for the social organization, the state, to assume charge of the now well-recognized social function of industrial education.

Some inferences from this condition of affairs seem to be plain. If a complete industrial education requires actual participation in productive industry, and if industrial education is a state function, it is reasonable to infer that the state should control industry at least so far as to make use of it for educational purposes.

A state that cares enough for its children to educate them for industrial efficiency cannot in reason sit passively by and let that efficiency be merely a tool to fit the exigencies of private profit. It cannot afford to train young men and women at great expense, only to let their increased worth as producers accrue to the enrichment of a favored few. It must recognize that educated human beings are worth too much to be tossed about in the great gamble and scramble for business profits, and wasted now in overwork, now in enforced idleness. It must go on and guarantee that the conditions of labor shall be decent and livable; that the workers shall be assured of steady employment; that their increasing industrial efficiency shall come back to them in more comforts and leisure, and that their work shall contribute to their mental and moral growth. The state must see to it that its most precious possession, educated men and women, use their powers thruout life at the point of highest efficiency and thereby add to the honor and glory of the state.

Industrial efficiency means, or should mean, not merely greater profits for the employers of labor, but a fuller and happier life for the laborers; and a system of industrial education should be one in which the prime consideration is given to the welfare and happiness of the laborers.

It has always been our boast that our educational system was not privately owned nor managed for the benefit of private interests, but for the common good. "The public school, the last bulwark of democracy!" has been a powerful rallying cry for the conservation of the fundamental principles of a national life. And now that the school is beginning to assume new forms, and include definite preparation for occupations, it behooves us, educators and conservators of the common good, to see to it that the character of the new education be primarily for the fuller development of boys and girls, in order that they may acquire the scientific spirit and the social consciousness, and not be merely tools, highly specialized tools, for the piling up of more wealth for economic masters.

Industrial efficiency, that is, the ability to produce more wealth, we must have. In the effort to obtain it, let us also secure social efficiency, the ability to produce more happiness for all, thru participation in the common life.

DISCUSSION

JAMES E. ADDICOTT, principal, Newman Manual Training School, New Orleans, La.—While we all admire the spirit and are in full sympathy with the educational ideals of the author of the paper just read, there are a few semi-socialistic sentiments expressed, the details of which we would wish explained or modified before giving an unqualified indorsement. Probably all of us are of the same opinion as Mr. Noyes on the main points of his paper: that "science is becoming more and more concerned with its application to industry;" that both science and industry were "in mediaeval times distinctively individualistic" and have since become more social in their nature; that "science has a strong socializing tendency" and that the industries are helping materially to socialize the world; that "science and industry are inter-dependent;" that "modern science is social knowledge and impossible for the individual to acquire alone;" that "education should include familiarity with modern science" and should also "reveal the social significance of industry;" that to "reveal the social significance of industry involves participation in industrial processes;" that "the socialization of science and industry tends to a higher type of human character;" that the scientific ideal is "social service instead of private gain;" and it makes for "good will as the lubricant of human relationships;" that "it is the function of the state (1) to prepare its citizens for industrial efficiency" and (2) "to guarantee to its industrial citizens some comforts and leisure, thus giving opportunities for mental and moral growth."

Some of these statements or inferences would admit of considerable discussion if time would permit.

Mr. Noyes says, "Science tends to give to a higher degree than industry the social consciousness, the realization in spirit and in conduct that life is social, that participation in the common life is the only life worth living." We cannot suscribe fully to this statement, for industry in all its various phases has in all ages been one of the greatest socializing agents; and science, even in its most modern and perfected form, is and always must be a mere auxiliary to industry. The real value of science or of any other branch of human knowledge must be determined by the service it can render to man's works and to man's ideals.

Mr. Noyes's statement that hand-work problems in the teaching of historical stories "have contributed as much to the mystification as to the enlightenment of children" cannot be accepted by teachers and supervisors of primary work. While we all agree that a complete understanding of the principles involved in the harnessing and directing of natural forces is highly desirable, it must not be assumed that this is the all-important aim in education; neither must we assume that small children have the interest in or the capabilities to conceive the principles involved in such highly differentiated processes. The work and methods alluded to as mystifying I would still contend to be the better for children below the fifth year of the elementary school. These children live in and enjoy a certain spirit of mystification.

The scientific spirit which reveals modern industry has not found a place in the small child's mind; his scientific attitude must be shown rather in his appreciation of the true, the good and the beautiful in nature, in a refined and delicate feeling of pleasure in the sunset, the woods, the mountain, the streams, and in a sympathy for the birds, the animals, and the people he meets.

Again we must not accept as final the idea that the scientist is a human model, while the business man is a selfish, dishonest, secretive individual; and that because industry exacts tribute it is therefore barring the progress of science. The real efficacy of even pure science lies in the fact that it may ultimately prove useful and profitable to man in his various industrial enterprises.

Science seeks and obtains its reward as it becomes useful to industry. It is true that greed for money has lowered the ideals of many business men, but greed for honor, for fame, yes, for knowledge, may be just as selfish and sinful unless controlled by a spirit of social service. The teachers are living in glass houses, and although at times it becomes our duty to throw stones at the business men, they in turn could nearly destroy our educational homes by a swift return of the missiles. I refer to the examination system in schools with the accompanying rivalry for highest per cent., for prizes and for the glory which comes to the one who has defeated others in a useless and purposeless race, all of which is conducive to the development of vanity and selfishness among our very best pupils and should if possible be replaced by a purpose which is nobler and more altruistic. The memorizing and cramming process so prevalent throughout the country wastes much of the time and energy of supervisors, teachers and pupils and crushes out much of the love of real study and the enjoyment in independent thought.

The examination system sets up false ideals, similar to those found in business methods, and emphasizes too strongly the memory of facts and offers little reward for judgment and power to plan and to do things. In adult life success depends upon the use of knowledge and abilities; no reward is given for merely knowing. A child who is led to believe that the accumulation of facts alone is the good education has a false notion of education.

All the misers are not seekers and hoarders of money: some are after facts and knowledge with no other purpose than that of hoarding. This is both narrow and selfish. Knowledge unused is of no more value than gold hidden in the miser's chest. Religious precepts, moral principles and educational processes are of value only so far as they affect our acts, only so far as they help us to live nobler and more useful lives. We should teach our pupils how to use knowledge, how to study, how to solve life's problems and how to do things. The motto of the teacher should be "Train for social service," as Mr. Noyes advocates—this means unselfishness, nobility, and character.

THE MOST URGENT EDUCATIONAL NEED OF TODAY IS PROVISION FOR INDUSTRIAL TRAINING IN PUBLIC SCHOOLS

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[*An Abstract*]

It is fortunate that we are all agreed that there are educational needs, and that our present system of education can not, from the very nature of the case, be final, for there can be no such thing as finality in education as long as man continues to develop. We catch the cue-word of the most urgent educational need from the very age itself in which we are now living—the Industrial Age. For it is the conditions of this age which have made so plainly evident to us the chief shortcoming of our present system of public education. During the last three decades we have seen the successive introduction of the kindergarten, the manual-training and the commercial schools into our public-school system. The two former have, however, in so far as they have been successful, a cultural motive.

On the other hand, the last half-century has been what might be termed the professional education age, for in it the establishment and development of professional schools in large numbers has been the most marked educational characteristic. It was felt that modern intelligence and modern demands—in a word, modern life—required a professional training which could no longer be carried out by the older method of association with a practitioner. But professional schools are for adults, and, consequently, they are conducted on a basis which applies to adults, and, except in the cases of a comparatively small number of state schools, they can be considered public schools only in the sense that the expensive "boys' schools" in England are called public schools.

Industrial schools, on the contrary, are needed for youth of public school age, consequently they should be public schools in the sense that they should be free schools. The need of industrial schools is brought about by the demands and the conditions of the present day. The youth cannot become a skilled industrial worker without a preparatory training. The old-time apprenticeship system, in which the master workman taught the youth, under his own eye, the necessary work and even the secrets of his trade, has gone by. In fact, it could not exist under the present-day industrial conditions. And yet the demand for highly skilled workers has grown enormously and is still on the increase. Indeed, so great is the present-day demand that the majority of the youth — at least of young men — who reach the age of self-support enter upon some form of industrial work.

Fortunately, we have not to discuss from the beginning the propriety of making the professional training of youth a public education matter, for that question was decided in favor of such a move in the consideration of commercial instruction in the public schools. If enough pupils are expected to enter upon commercial life to justify public commercial instruction, how much more do the greater number who enter upon industrial life justify industrial instruction at public expense.

It has, however, been found that separate commercial high schools are necessary to meet modern business demands, and all the more will separate industrial schools be needed to meet industrial demands because trade processes must be taught by skilled specialists, and the general supervision which will suffice even for a commercial school will not be sufficient for an industrial school. In the establishment of industrial schools for youths we are but extending—that is, carrying down—the idea of professional training to a legitimate public-education field.

The position of Massachusetts in the industrial-education movement is doubtless known to you all. Having been the first state to establish a commission with broad but clearly defined active powers, it has been regarded as the pioneer in this work in this country, and, as a consequence, the state commission has been consulted from all sides, both by personal interviews and by letter. Many visitors come to our office, not only from various parts of this country but also from the antipodes, to get information regarding our studies and method. So numerous have been the requests of committees and associations, both within and without the state, for addresses on industrial-education topics that it is found utterly impossible to respond to more than a fraction of such invitations. The work of the Massachusetts commission lies in four distinct lines: first, the study of what has been accomplished elsewhere in industrial education and the diffusion of this knowledge; second, the study of needs for industrial education in general, and in different localities in Massachusetts in particular; third, the creation of local public sentiment which shall demand the establishment of industrial schools, and the advising local authorities; fourth, the establishment and conducting of industrial schools, including such details as planning courses of study, approving the selection of teachers, and the supervision of the schools.

Schools affording industrial training should be provided for persons of fourteen years and upwards. For those youths under fourteen the training should be, as now, for general development. It has been found through long experience that, to educate thoroly for the trades, the instruction which shall begin a definite preparation for industrial work should be entered upon at an age not later than fourteen or fifteen. These were the ages at which, under the old-time apprenticeship system, youths entered upon their apprenticeship. At this period they are mature enough to begin the serious study of industrial work, and after this age there is a tendency, which grows stronger and stronger with the increase of years, for them to turn from the mechanical trades.

The kinds of schools needed for youths more than fourteen years of age who will enter industries, or are already in trades as more or less skilled workers, may be briefly stated as follows:

First, there are the schools for youths not in the trades but who are preparing for entrance upon life's work as industrial workers. For such, in the cities, there should be day independent schools which shall instruct the boys in the mechanical industries, in both practice and theory, and in good citizenship; and instruct the girls in women's trades, in both theory and practice, and in domestic science. In the rural districts there should be established day independent schools which shall instruct the boys in agriculture and citizenship, and the girls in certain branches of agriculture and in domestic science. Such agricultural schools should also offer courses for those already engaged in agricultural pursuits.

These independent industrial schools must provide for those youths who desire a trade education. It is to be presumed that the fourteen-year old boy and girl have received such cultural training in the elementary schools as will enable them to understand the work which will be assigned them in the industrial school.

The youth should be admitted to the industrial school upon arriving at fourteen years of age, irrespective of his having completed the general education of the elementary schools. It is necessary, however, that he should have had sufficient training in arithmetic, English, and such other subjects provided in these schools, as will enable him to take up the subjects which will be given in the industrial school, which include not only hand work but such book work as may have a direct bearing upon his trade education, as, for instance, chemistry as it relates to the trade, physics as it relates to the trade, shop mathematics, shop problems, such algebra and geometry as is necessary to enable the youth to read the trade papers and which is quite different in character from the algebra and geometry given in the ordinary high school.

The school for the youth fourteen years of age or above would be established with the idea of a four-years' course at the maximum. There are youths who will find it impossible, for financial reasons, to remain for the entire four years.

Second, for youths already employed in the trades, whether they be learners or workmen, there should be established independent evening schools for those who find it impossible to devote any portion of the daytime to school attendance; but there should also be established independent part-time day schools for those workers who can arrange to devote certain periods of the daytime to attendance upon such schools. Perhaps the best form of part-time school would be what may be called a "repetition-school," where two sets of pupils are instructed in the school and the instruction of one week is repeated the next week to a different class. By such an arrangement two boys who felt that they must work for their living could work in pairs, each a substitute for the other at school and at their chosen industry. That is, John might work in a shop one week while Tom was going to school. The next week Tom would take John's place in the shop while the school instruction which Tom had been receiving would be repeated for John's benefit. Such an arrangement should not interfere with either the school or shop work. These boys, by reason of their training in the school, would do their work better while they were in the shop. Such an arrangement should be welcomed by the manufacturers. The manufacturers of Massachusetts have repeatedly expressed to me and to the investigators of the Massachusetts commission that they would be willing to allow the boys who were at work in their factories opportunity to profit by such instruction if such schools should be established. That such a school would mean a special school with special teachers is plainly evident. It would not do to bring into close school association such adult pupils with the younger pupils of the usual day school and the instructors would have to be men who, by reason of their trade skill and knowledge, would command the respect of trade members.

This brings us to the question: Why should industrial schools be independent schools? The aims of the industrial schools are wholly professional, while those of the present public schools are largely cultural. The methods which must be employed in the industrial schools in order to make them a success are totally different from those of the cultural schools, for at every step the immediate practical value of the matter taught must be made clearly evident and emphasized. Not only the teaching but also the supervision in such schools must of necessity be radically different from that of the cultural schools.

The training of teachers for these independent industrial schools may be effected in one of two ways: first, the training of skilled workmen to become teachers; second, the training of existing teachers in trade work so that they shall become skilled practical mechanics.

The courses of study and work in such schools will provide general industrial training as a foundation, will meet the needs of the youth for the local industries, and will put the youth in touch with actual commercial methods and work.

It was at first thought that the work of the Massachusetts commission would result in the establishment of technical high schools, which would have for their object the fitting of men for industries directly. Many people believed that the technical high school or manual-training school should have that for its main function—the fitting of men for industries and trades; but after a very thoro study of the situation in foreign countries, in Massachusetts, and in other states in this country, the Massachusetts commission has come decidedly to the conclusion that a technical high school, altho of value in our educational system, cannot, as now conducted, provide for the needs of youths who are to become the skilled workmen.

Now those schools reach the same boy, practically, that the high school reaches. A boy, if he is to pass their courses successfully, must have in his mind an idea which tends to carry him in the direction of general culture.

If the idea is to extend the work of the high school so as to meet the needs of the same class of pupils who are now in attendance in the high school, then a technical high school or a manual-training school is the proper kind of a school for the accomplishment of this. If, however, it is desired to meet a condition which is facing the country squarely—the question of what is going to become of the 90 per cent. who drop out of the schools before they graduate from the high school—if it is desired to provide for numbers of these youths, then it is necessary to have a new kind of school—the industrial school.

The school should be conducted more as a manufacturing business would be conducted. The boys and girls in the school should be given to understand that time is money. The school should be thoroly equipped with all the machines used in the special subjects to be taught—a forge shop, a carpenter shop and machine shop. These schools, instead of trying to give something which has only cultural value—educational value as it has been understood to be—should try to give all the subjects taught because of their practical value. We shall find that the youth who comes from these schools is educated in a broad sense while at the same time he has been getting things of practical value.

I have no fear that the parents will not send their children to these schools after the schools have gotten a start. My personal observation in Cambridge is quite conclusive on this point. As head of the Manual Training School, I saw it grow from 120 pupils to over 500. I know that a very large percentage of those boys entered the school because their parents believed that the school was going to teach them a trade, that is, those parents wanted the boy to have that opportunity. We would start with more than 100 in the entering class and the class in the senior year would be reduced to less than 50. Those boys dropped out of the school because the school was not giving them what they thought they wanted. They would beg and their parents would plead for the privilege of more work in the shops, and to be excused from a purely cultural subject which the boys seemed totally unable to handle because they had no interest in it.

The Massachusetts commission believes that these schools should offer as a maximum a four-years' course. For the first two years the courses would naturally be those which would very largely train the hand, and the mind through the hand, working in wood and metal—very much intensified manual-training school or technical high-school shop courses, completing what would require four years in such schools in two years; and along with this practical work there should be given subjects which relate to industrial occupations instead of the cultural subjects which we have insisted upon in the past. Then, after these two years of general preparation, if the boy intends to become a machinist, a blacksmith, or a carpenter, specialize with him for such time as experience demonstrates is necessary to give him the training for that particular line of work. I think if these schools are started with the boy at fourteen, by the time he is sixteen you will find that it will not take him very long to become prepared to go into the industry. He is not wanted in the industry from fourteen to sixteen today except in the textile lines. The manufacturers in Massachusetts say that the fourteen-year old boy is of small value to them. They will take him at sixteen. They do not want him younger. Our feeling is that the fourteen-year old boys (and girls) are the ones that should be provided for, and that this country needs the services of those boys, who are now becoming our untrained workers, in skilled industries. The long consideration of manual training has in a great measure prepared the community for industrial training at public expense. Those who have made themselves foremost authorities on manual training are realizing most fully its industrial shortcomings and are the most enthusiastic advocates of independent industrial schools.

DISCUSSION

Carroll G. Pearse, superintendent of schools, Milwaukee, Wis.—Industrial education is the crying need of the day. Our schools are the outgrowth of the needs of the community and we have provided for these needs as soon as they made themselves felt. In the past the industrial needs have been supplied for the boy in the shop with the apprentice system, and for the girl in the home. These conditions have been outgrown, particularly in the towns, and I am agreed with Mr. Morse that the most pressing need of the day is a better preparation for industrial work, or, in other words, for vocational training. Heretofore industrial training has been looked upon as an interloper, but the recent meeting of the Society for the Promotion of Industrial Education marks an epoch. Industrial Training, the brat of the kitchen, has been given a place in the sitting-room and made a part of the family.

In what I say I shall discuss some of the things with which I am acquainted. Certain men of Milwaukee, realizing the need for such an institution, established a School of Trades. They gave it no fancy name and sought to place at the head of it a man well trained in the trades. Two years ago the legislature passed a law placing the school under the control of the public-school board and providing for the levy of a tax for the maintenance of the school. The school board has now been in control for a little more than a year. The cost per pupil is three or four times as great as for instruction during the same time in the regular high schools, but we feel that it is well worth the price. Plumbing, pattern making, and the machinist's trade have been taught and this year we are adding a department which will teach the work of the good old-fashioned carpenter and joiner.

The boys go out from the school and do their work as well as some of the plumbers and better than others. The same thing is true of those who take up the work of the machinist and the pattern maker.

The boys are received at the age of sixteen, which is the lowest age which the law allows, tho we should like to take them at the age of fourteen. Such boys as have at least finished the eighth grade are preferred tho others are taken. Tho the experiment has been in operation so brief a time we feel that the results fully justify the extra expense of a trade school.

Edna D. Day, University of Missouri.—Tho I sympathize in the main with what has been said I feel that one omission has been made. It is not enough to be trained to earn a living but it is equally important to be trained to spend our money to the best advantage. This can be done in the study of home economics. In this we teach the girls to buy the different foods, and the various furnishings and materials needed for the home. The boys as well as the girls need this training, as well as something of hygiene.

We spend but a part of our time in work, a large portion being devoted to recreation. The school system which does not train how to utilize the leisure time to the best advantage is worthy of much blame.

BERT M. LESEUR, director of manual training, Reading, Pa.—May I ask Mr. Pearse what has been the attitude of the trade unions to the Milwaukee Trade School?

MR. PEARSE.—I am glad that question has been asked as it is a vital one. We went to the legislature with the bill to make this school a part of the public-school system and were fortunate enough to have the bill passed unanimously. There were in the legislature representatives of various labor unions. The special committee having charge is made up largely of manufacturers, though there serves upon it a business agent of a machinist's union. Of course there has been some slight opposition to the school, but this is decreasing as the work of the school becomes better known. Some of the boys going out from the school join the union, while others take up their work in the non-union shops. Perhaps more join the union than do not.

MR. LESEUR.—Have any of the boys, so far as you know, been refused admission to the union?

MR. PEARSE.—No, not so far as I know.

FRANK H. BALL, director of manual arts, Public Schools, Cincinnati, O.—These papers have been of interest to one who is an old manual-training teacher and I thought that you might be interested in a phase of the problem as it is being worked out in Cincinnati by Professor Snyder. He has taken students from the classes in the technical schools and put them into the shops in alternate weeks. The plan has proved very successful and is capable of adaptation to the public schools where the expense of trade schools, were all trades provided for, would prove prohibitive.

PAUL KREUTZPOINTNER, Altoona, Pa.—How many pupils are accommodated in the Milwaukee Trade School?

MR. PEARSE.—The day classes I believe to be nearly filled to their limit, and the night classes have a large waiting list. There are accommodations for 40 in the machine shop, 20 in pattern making, 40 in carpentry and 40 in plumbing.

MR. KREUTZPOINTNER.—What are the running expenses?

MR. PEARSE.—The expense for the plumbing, including instruction and material, varies from $15 to $20 a month. For the other trades the expense will be under $15.

THE RELATION OF MANUAL TRAINING TO INDUSTRIAL EDUCATION

M. W. MURRAY, SUPERVISOR OF MANUAL TRAINING, SPRINGFIELD, MASS.

How to secure the most efficient help is the manufacturer's problem; the conditions and pay of labor constitute the trade-unionist's problem, and making the most efficient social unit of every boy and girl in the schools is the problem which we, the educators, must endeavor to solve. If we analyze the case, we shall find that all three can unite on a common ground, and that in the proper working out of these problems the manufacturer will get better help, the trades more pay and better hours, and the schools will do more than ever before in the way of education.

According to the United States commissioner of education, a common-school education increases a man's wage-earning power 50 per cent., a high-school education 100 per cent., and college training 200 per cent. I wish to contend that every boy and girl should come within the 50 per cent. class and receive at least the equivalent of a common-school education. This cannot be done so long as practically everything is dominated by the college ideal. We must come to see that it is the absolute right of the boy who does not wish to go to high school to be equally well fitted for a mechanical line of work if he cares to pursue it, and have the same amount of money spent for his education.

The schools of Springfield, Massachusetts, are probably fairly representative of the best in our present-day system of education. Let us consider the statistics of the class which has just been graduated from the high schools of that city. When it entered the first grade, in 1895, there were 1,539 in the class. Before it had finished the ninth grade, 1,075 or 70 per cent. had left, and 1,363 or 88 per cent. had left before entering upon the senior year in the high schools. If we take into consideration the rapid growth of Springfield, and the fact that some of those entering the high schools come from surrounding towns, we shall have a loss of many more than 1,075 before they enter the high schools. We find that this class had the first year in the high schools an enrollment of 433, the second year, 248, and the third year, 236. A drop so great from the first to the second year would seem to indicate that the trouble is not entirely in the grades, and that pupils are disappointed in what they get in the high schools. Yet in Springfield there is some constructive work below the fifth grade and about the average amount in all grades above the fifth, including cooking and sewing. There is a technical high school with a commercial course, a domestic-science course and other so-called technical courses, and the schools are still falling far short of meeting the needs of all the pupils.

A further study of enrollment statistics shows where we need to begin to attack this problem. During the last year there were in the elementary schools of Springfield, 1,423 pupils fourteen years old or over, under the following classification: Fourteen years old, 801; fifteen years old, 417; sixteen years old, 164; seventeen years old, 34; eighteen years old, 7; total, 1,423. Of children between 14 and 16, there were in the city a total of 2,641. Of these, 427 or 15 per cent. were in the high schools; 1.218 or 47 per cent. were in the elementary schools; 268 or 10 per cent. were in parochial or private schools, while 727 or 28 per cent. were not attending any school. Over 700 boys and girls losing the benefits of school training, and not being fitted to do anything in particular!

Many promising remedies which we would gladly try have been suggested for these universal educational evils, but we inevitably meet with the question of expense, which not only keeps us from improving our present school system, but too often makes it next to impossible for school superintendents to maintain what is already established. Of the billion odd dollars appropriated at the last session of Congress, the United States Bureau of Education obtained $1,250 as an addition to its appropriation over that of the previous year. Commissioner Brown was anxious to expand the work of his bureau and make it a clearing house for all educational work in this country. There was needed $50,000 more, but Congress gave the bureau practically nothing, while it spent $10,000,000 for battleships to keep the country from going to smash.

Too much stress has been laid on a broad general training, and there has been great fear lest we specialize too young. We are told that a boy in the elementary school does not know what he wants to do, and so cannot pursue a special line of work, but we have ample proof that there is one thing which many of them will not do: namely, study abstract things from books. Many fail to realize that we are already forcing boys to specialize in deviltry and idleness by driving them from school. We cannot nor do we wish to add vocational training to our already overcrowded elementary school course. We must have special courses and special classes for the boys and girls whom we are not reaching at the present time; not an addition, but a parallel to the present elementary school course. We need not fear that direct vocational training will at all upset what already exists. We are asked, "How do you know that boys will stay in school if they are given vocational work?" Of course, we do not know that they all will, and we should probably be unable to furnish teachers and equipment for them if they did. We have had experience enough, however, with what little has been done with manual training to prove that there is a large number of these pupils who are held in school and their interests aroused through this kind of work.

Any live manual-training teacher can cite cases without number where manual training has been practically the only thing in the curriculum in which boys have been interested, and I have had many boys tell me that they would stay in school longer if they had more work with their hands. Manual training is doing a great deal as it already exists but I shall try to point out where it is falling short and what can be done to improve it.

Since its introduction, the advocates of manual training have laid emphasis chiefly on its educational value; that is they have tried to distinguish between that which is educational and that which is practical. Should we not look at education as more than the three R's and realize that anything which betters the condition of man, enabling him to earn a better living through knowing a trade, and so to make a better husband and father than he could otherwise be, is educational?

Whatever may have been the original purpose of manual training or motor training, it has come to be pretty generally accepted as a means of general training, and in the lower grammar and primary grades as a method of instruction or a means of expression through constructive activity. With very young children in the kindergarten and primary grades it is most largely and I believe properly used to illustrate their regular work, making it clear to them by picturing their stories, cutting forms from paper, building them in clay or whatever material may be used, thus trying to make the work real, not abstract. When we get into the upper grades, the work becomes more technical, as independent subject-matter is introduced, and definite tool manipulation and principles of mechanics are taught. In the high school, on account of the greater amount of time devoted to the work and the more advanced standing of the pupils, it is still more technical and theoretical, the general principles underlying the trades being taken up. The more specialized the work, and the more theory is taught, the more technical it becomes, and if it is carried far enough, we have the training for engineers.

The terms, manual training, motor training, industrial training, trade training, and vocational training are often used as if they were synonymous. To make myself clearly understood, I wish to state what I believe the different expressions have come to stand for. They overlap in so many cases that no sharp line can be drawn between them, but each term should stand predominantly for one kind of work.

The function of trade training is, as the name implies, to make mechanics. It is possible to do this with comparatively little technical knowledge or theory. The technical principles involved may be beyond the skilled workmen. I believe that any work which will enable a student to take a better place in the industries is industrial training. Thus trade training, technical training, and manual training, in so far as it makes a man more efficient in industrial lines, are industrial training. Generally speaking, the present status of manual training is general training, but if we broaden it, we shall have on one branch technical training, and on the other trade training. Vocational training should include all of these and anything else which will enable a student to earn a living as commercial and professional training.

If we consider the psychological basis of motor training in the elementary school, I think we shall see that it is not only absolutely essential to general education and development, but fully as much so as the basis of trade or the other forms of vocational training, such as dentistry and surgery.

So much has been said, and it is so generally accepted that manual or motor training and the constructive activities are of primary importance as a means of general development, that I will not take time to lay emphasis on that side of the question. Important as motor training is to the child's general development, it is even more important to his special development or the acquisition of skill of hand in any special line of work. In the primary or play period, from two and one-half to seven years, the child naturally seeks to express himself through doing. We should take advantage of this time to make all our teaching real. During the secondary period, from about seven to about nine, there is a change in the play spirit which gradually becomes the spirit of work. Interest in results rather than in performance begins to develop and the child becomes critical of his work. During the preadolescent stage, from nine to about twelve, habits are most easily fixed and this should be the period for the beginning of the training for special skill. We should begin to look for good results in workmanship as we can develop accurate motor ideas only through accurate muscular movements, as motor ideas form the basis of manual skill. This brings us to the adolescent period, or the critical time between thirteen and sixteen when boys leave school, and if manual training or constructive work given during this period has fulfilled its function, it will have given them a training which will directly fit them to pursue a special line of work. The work in these upper grades and in the high school should be of such definite character that whatever is learned will be directly applicable to industrial life.

It is a mistake in discussing the educational value of manual training to attempt to divorce that side from the practical side, emphasizing its value as a stimulant to book work. While I think that this side has not been overemphasized, I do feel that many of the advocates, in their desire for the approbation of the traditional schoolmaster, have lost sight of the intensely practical side of the work which has invariably appealed to the general public. Just as soon as we introduce shop work into the upper grades or into the high school, work must be given which will stand the criticism of practical men and where it has not been done, the general public has been slow, and I think rightly so, to see the value of it and it has invariably met either with meager support or total disaster. Whatever may be the general educational effect on a boy of doing a nice piece of work in wood or metal, it cannot help having considerable industrial significance. A boy may learn to saw out a board, to size and plane it up for a coat hanger or pen tray, and we call it educational, but if it is done in the best way he should have learned the proper use of the saw and plane which would be directly applicable to carpentry, cabinet or pattern making. The only vital distinction between shop work which is educational and that which is vocational is that, in the latter, operations are practiced until they require little thought for their successful accomplishment.

There is a side to the question of trade training which has not been given due prominence in this discussion of industrial education. We should not feel that if we direct boys into a trade that their chances of a broader education are thereby lost. Probably the boys who will be directed into trade work will be those who have progressed in school just as far as it is possible for them to go, and the learning of a trade will be just so much additional knowledge. The man who is interested in what is he doing will read and study about that, and thus create a thirst for information which he will carry out into other lines. It is probably doubtful if a man ever learned a trade and had occasion to regret it in after life.

It should be clearly understood that the teaching of manual training in the grades for an hour or an hour and a half a week will not only have little or no effect in solving the question of industrial education, but the work will come a long way from fulfilling its function as a means of general training. One hour once a week may be better than nothing, but I have come to believe firmly that it is little better than a means of giving boys a short recess from book work. About all the best results in manual training, that is where not more than an hour or an hour and a half a week has been devoted to the work, have been obtained by a few teachers of unusual physical energy who have allowed boys to work a great many hours out of school. I have recently read a school report which contains an admirable statement of the needs of industrial education, and the superintendent finishes by recommending that the community solve the problem by appropriating $500 for equipment and paying $600 to a woman teacher to give the boys of the upper grades an hour or an hour and a half a week—a perfectly ridiculous solution.

A complete system of industrial education requires constructive work in the primary grades, not less than two hours a week in the grammar grades for all pupils, special extra classes for those boys who have not progressed far enough in the grades so that they would get the more formal work with tools, and special classes which will allow those boys who desire it to do from two to five hours more work a week. This should enable pupils to decide whether they wish to go through the technical high school which will lead to the higher technical schools and the engineering professions, or whether they wish to enter the vocational schools which will lead directly to the trades.

It can rightly be claimed that manual training is not industrial training, that is, if we mean by industrial training only the teaching of a trade. Trade teaching should be only a part of a complete system of industrial education, and manual training is as essential to it as it is to the system of general education.

A school system is unlike a business organization in that its primary object is not to make money, but there are many points of similarity between the two, and many places where business methods might well be applied to the school system. The object of the school should be to make the best possible men and women from whatever material is furnished. We probably exercise care enough in the spending of money for teachers and supplies, but do we use care enough to see that none of our raw material is lost or wasted in the process of education? What were formerly the by-products of many manufactories are now their most important sources of profit, and I think we are fast coming to see that something should be done to save the large number of pupils who never complete the elementary-school course, these by-products of our school organization. If the high-school graduate is the finished product of the system of education provided by the state, is not the loss of material, dropped or spoiled in the process, tremendous?

I feel confident that, in the near future, our schools will have to be so organized that not only will all the pupils in the elementary school have more constructive work than there is at the present time, but that those who are non-bookish or must leave school early to go to work will be given an education of a more practical kind which will make them feel that they are being fitted to do something in particular. This will mean that they must get more of the traditional three R's than they could possibly otherwise obtain. I do not see how in the working out of this plan, it is going to at all affect what we already have, unless it is that what we are at present teaching in all subjects will be better taught in the future, made more live and better fitted to the needs of the pupils.

DISCUSSION

A. E. Dodd, North Bennett St. Industrial School, Boston, Mass.—To me the strength of the appeal which this last paper makes is not because of its concern with ideals toward which we all must work and which are impossible of immediate attainment, but rather because it presents with such feasible suggestiveness a scheme which Dr. Snedden in speaking the other afternoon called "a plan for tomorrow."

That manual training has not met one of the chief needs of that period in public-school life wherein occurs the great loss in attendance and of which Mr. Murray has submitted figures even from the enlightened city of Springfield, none know better than those of us who are in the work.

That this loss takes place during the period extending from the sixth grade to the high school does not seem to me to be any argument for the establishment of trade courses in the grades as some would have. No child of grammar-school age is sufficiently developed physically or mentally to lay aside a broadening course and elect work that trains in specific operations. Any scheme advocating such practice would be wholly un-American and would tend to even greater class distinctions than are found in Europe.

Now almost any teacher or principal with whom one may speak will quickly agree that there is a large mass of detail material taught in various subjects almost solely because they were taught years ago and survive today because of tradition. In times when few subjects were taught it was possible to take up these details which are now become practically dead matter in relation to the present-day needs.

With the growth of the past several years there have been constantly added new subjects which changed conditions have made necessary, but at the same time there have been no eliminations. And so when manual training was tacked on to this already crowded curriculum a further squeezing was gone through in order to find the 5 per cent. or 10 per cent. of schooltime to be devoted to the work. As Mr. Murray shows in the figures quoted from Springfield—and which are country wide—manual training has not been the hoped-for force in holding children in school. It has been in many cases little more than a dab in effect. In trying to make use of this very small amount of time many manual-training people have been led into accepting a low standard of construction often covered with a stuck-on decoration which mainly served to keep the attention from dwelling too strongly on poor construction and which, so far as giving the boy a high standard of constructive appreciation, has been time wasted.

As a possible plan to put into effect for present use, the subjects of the upper grammar grades may be gone over and some of the mass of detail in history, geography, arithmetic, etc., may be cut out. Instead of long recitations on what may bound Europe or Arizona, it is possible to dwell more upon the commercial products or the industrial history of a locality. This would then make possible sufficient time for doing handwork of the solid sort that would give the child that satisfaction of accomplishment so necessary as a stimulus, and also make possible a standard of attainment with various materials that is not possible under prevalent conditions. This opportunity for a boy to do what he is really capable of doing is of prime importance. Allowing more time for these things will make for an industrialized manual training that the boy who now leaves school can see the use of and which will carry him to the point where he may enter either a pure trade school or a technical school.

INTERMEDIATE INDUSTRIAL SCHOOLS AS A REQUIREMENT OF A PROGRAM OF INDUSTRIAL EDUCATION

EDGAR S. BARNEY, PRINCIPAL HEBREW TECHNICAL INSTITUTE
NEW YORK, N. Y.

With the exception of electricity, no science has made greater progress during the past thirty years than has education. The introduction of the use of tools into school-courses under the names of manual training and technical work thirty years ago opened up a new era in education in this country. The advancement and the rapid, successive changes in the electrical and other industries since the invention of the incandescent lamp and the electric dynamo, together with the decline of the apprenticeship system, have made the introduction of industrial work into our educational system a necessity, just as the advent of railroads about 1830 made the new type of civil-engineering schools of college grade a necessity.

The old apprenticed mechanic learned his trade in the comparatively small shop of his master where an opportunity to learn all the operations on the different kinds of work in that shop was possible; but the invention of new and automatic machinery, the division and subdivision of labor, the combination of capital into corporations bringing under one management hundreds and even thousands of employes have changed this, and so today the apprenticeship system is practically a dead letter.

We should not rely upon foreign skilled labor to meet the demand. Our only solution of the problem is to turn to the schools and introduce thoro practical courses in industrial and technical work, which courses shall include not only the use and manipulation of tools, but shall combine therewith those subjects which will lead to an industrial intelligence, a knowledge of materials and the principles of mechanics, of the cost of production and the commercial value of time.

In New York City approximately 37 per cent. of the population are engaged in industrial and mechanical work, 37 per cent. in business, 19 per cent. in domestic service and 5 per cent. in the learned professions, and undoubtedly other large cities of our country would show nearly the same percentages. There are many schools for the 5 per cent. in the learned professions, but aside from the engineering schools of college grade, there are but few containing thoro practical courses for the 37 per cent. engaged in industrial and mechanical work.

The growth and development of an educational system, like that of any other science, must be an evolution, the result of practical application and experience. We have seen the introduction of the kindergarten; of simple handwork in the primary and elementary grades; of manual training in the high school—manual training for educational development only. We must go a step farther, develop and expand industrial and technical schoolwork leading to a vocation in the upper grades of the elementary schools and in the high schools for children from thirteen to seventeen years. The study of the conditions of youth in our country has led to the expression often heard in educational discussions, that "the years from fourteen to sixteen are wasted years." Why so? My study of statistics of various commissions has led to three conclusions:

First, the great majority of our boys leave the public schools by the time they are fourteen when the state releases them from further obligation of attendance.

Second, the mechanics' trades of skilled labor do not admit boys until they are sixteen to eighteen years of age.

Third, the great majority, sixty-eight per cent. as a result of one investigation of over five thousand cases, drift into the ranks of unskilled labor, that is, in department and other stores, as messengers, errand boys in offices, and in factories and shops employing hands of a grade known as unskilled labor.

The schools, both elementary and high, are too exclusively literary in their character for the average active boy from thirteen to seventeen years. This is a period when the boy wants to do something practical, when he wants to see definite results. Give a boy a school with a definite vocational end in view, let him feel and know that when he has finished his course he will be prepared to enter a vocation with a fair prospect of advancement, let him feel the interrelation between his mathematics, science, drawing and shopwork, let him realize that he is preparing himself for something definite in the lines of the skilled artisan where his wages will be commensurate with his worth, and that boy will continue at school both from his own choice and as the wish of his parents. This is not merely a theory; we, at the Hebrew Technical Institute in New York, have shown that the problem of school mortality, that is, the large number leaving before completing the course may be practically eliminated or, at least, with the masses, greatly reduced.

In the public schools of New York the annual number of those enrolled that leave during the year is about 44 per cent., while at the Technical Institute those who voluntarily leave during any year is only 8 per cent., and most of these leave for such reasons as sickness, death in the family or removal from the city—conditions entirely beyond their control. Besides, truancy is of rare occurrence. A great deal of the success of the school depends upon the teacher and especially the teachers in the technical and shop departments. However contrary it may be to theory, we have obtained the best results by engaging as our shop teachers expert mechanics of wide experience, of good elementary or high-school education, men who have been successful foremen and superintendents. It is easier for such a man to conduct successfully a shop class than for an experienced teacher to become an expert mechanic. There are but few today who possess both these qualities. In a few years when we do have men of both high education and practical experience, our technical teaching forces will be greatly improved.

The Hebrew Technical Institute, with its twenty-four years of experience, has conclusively shown the practicability of carrying out a technical course of study and work fitting the boy for some definite vocation in life. This school, established in January, 1884, was one of the first in this country to introduce definite systematic courses of shop-instruction for boys. The minimum age of admission is twelve and a half, altho the average age is nearly fourteen. An entrance examination is given in arithmetic, thru interest, elementary English grammar, United States history and geography, equivalent to that given in the elementary public schools of New York upon completing the 7B grade. We prefer to have the boys finish the elementary school before coming to ours, but in many cases, for home reasons, they are unable to do so, and we then admit them upon completing the 7B grade or its equivalent. The course of study and work is three years. All students pursue the same general course during the first two years, devoting approximately one-third of the time to shopwork in wood and metal, one-sixth to drawing, one-sixth to science, one-sixth to mathematics, and one-sixth to English, history and geography.

DISTRIBUTION OF TIME

	Hours per Week		
	Senior Class	Middle Year	Junior Year
English Subjects	2	2	3
Mathematics	4	4	4
History and Geography	1	1	2
Physics, Mechanics and Electricity	4	4	3
Shop Lectures	1	1	..
Freehand Drawing	..	3	3
Mechanical and Architectural Drawing	4	3	5
Shop Work, Joinery	..	2	8
Shop Work, Wood Carving	..	2	..
Shop Work, Wood Turning	..	4	..
Shop Work, Pattern Making	2	..	..
Shop Work, Vise Work on Metal	..	4	..
Shop Work, Machine Work	4	..	..
Special Work: Pattern Making; Architectural Wood Work; Carving; Machine Work; Instrument Making; Architectural, Mechanical or Freehand Drawing, or Practical Electricity	12		
	34	30	28

Students not fitted for successful mechanical work either physically, mentally, or by inclination or aptitude, are requested to withdraw. At the beginning of the third year the student, then a little over sixteen, chooses a special course, with the advice of the teachers and subject to their approval, in one of these lines: machine-work, instrument-making, wood pattern and model-making, architectural woodwork, wood-carving, mechanical drawing, architectural drawing, freehand drawing and designing, or electrical work. To this special course selected he devotes fourteen hours a week, practically one-half of the time, and the other half is spent at mathematics, English, drawing, physical science and shopwork in other departments. In mathematics the aim is to complete plane trigonometry, which is accomplished with the more advanced pupils. Shop problems are constantly introduced. The compositions and essays in the English department have a direct bearing upon the work in hand and are therefore written with interest and earnestness. The extensive work in the drawing departments incidentally enables the pupil to illustrate most of his written work and this in itself helps to increase the interest. In the department of physics and applied electricity certain definite experiments and measurements have to be made from a collection of blue printed descriptions and problems. These occasion extensive collateral reading and study, and carefully kept notebooks are required. We place first-class instruments in the hands of the students and we demand fairly accurate results. We have found it advisable to purchase high-grade instruments, tools and machines and to let the students use them. We are opposed to the too-frequent practice of merely showing an air pump, a volt meter or a switchboard to the student, and not letting him handle the article for fear it will be carelessly broken.

To be sure, our supervision is careful and our discipline strict, and while the students use all machines freely, we have never had a serious accident: no finger has ever been lost or bone broken.

A few years ago science was studied from the textbook only, no apparatus being used. Then came the lecture by the teacher with his limited outfit of apparatus, and this was a great improvement over the textbook-only method. Now we let the pupils themselves freely use the apparatus, tools, and machines. I well remember the intense interest I had the first time at school I was permitted to use a few pieces of glass tubing of different sizes to study capillarity. How much greater must be the interest and delight of the boy when he can handle the dynamo, the volt meter, the engine lathe and the milling machine, when he is able to operate them with skill and to make a galvanometer or a drill that in turn can itself be used.

In our shops a few simple exercises, as such, are made for the purpose of familiarizing the student with the tools; afterwards definite useful articles or parts are made. When drills, reamers, or milling-machine cutters are made, tempered, hardened and ground, we expect them not to vary more than one five-hundredth of an inch, a thousandth of an inch either over or under size, and that they will be fit for use in the shop. In constructing a motor, pair of field glasses or a lathe, the drawing must be accurate, the patterns made to size, allowing for shrinkage, and the machining must be, at least, to within a thousandth of an inch; in many cases however the work is correct to within a quarter of a thousandth.

The conditions in the mechanical departments are made to approach, as near as possible, those that will be found in the outside world. The pupil works mainly from a model or a blue-print. Several wood-turning lathes in use in the pattern shop have been made and during the past year the drawings and patterns for a 12-inch swing engine lathe have been completed, the machine work of which will be done next year. A small gas engine, a five-horse-power alternating current dynamo, a sensitive drill, an arc-light stereopticon, and several galvanometers are among the products of the school, and these have been made by boys from sixteen to seventeen during their regular class periods while they were acquiring the principles and some skill in the mechanic trades. They were not made by the teacher nor hired operators.

The object of the Institute is to give the student a thoro technical training in the use of hand and machine tools without neglecting his general education. The size of the class is limited, averaging twenty-four, to allow the teachers to give the requisite attention to each pupil so that the progress in English and mathematics is fully as rapid as in the public schools which devote more hours per week to each particular subject. The daily sessions are from nine until four for the first-year class; nine until five for the upper classes, with an hour at noon for luncheon which is served to all the students at a daily cost, not counting service, of six and one-half cents per boy for the food. There is a short vacation of two weeks in July, two in August and a half-day session the rest of the summer. The hours of work for the mind and hand follow each other in such a way that the attention is rarely overstrained even in a long day's work.

The students are instructed during the first two years in those subjects which will be useful to them in whatever mechanical pursuits they may finally choose, and in the third year they are encouraged to give special attention to that branch of work which seems most agreeable and suitable for each; but even here the aim is at thoroness, dexterity and understanding in general rather than at the acquirement of those special manipulations which can be rapidly acquired in practical life if the foundations have been properly laid. Experience shows that our graduates, in a short time, can learn more and advance more surely than can boys who have passed thru years of regular apprenticeship to a particular trade. We do not aim at teaching the higher branches of mechanical, civil or electrical engineering of college grade, but, rather, the practical operations and applications of the mechanics' and artisans' trades, with the expectation that ultimately our graduates will become foremen, superintendents, managers and proprietors, and in this respect our expectations have been realized. Of the earlier classes that have been out of the school ten or more years, 42 per cent. are foremen, superintendents, managers, or proprietors. Some, of course, will never rise above the grade of an ordinary mechanic.

The average age at graduation is seventeen years and three months. Seventy-five per cent. are following mechanical lines of work corresponding to those taught them at the Institute.

The average earnings vary from $8.00 a week for those graduated a year ago up to $50.00 a week for the older classes graduated twenty years ago, the average increase being $2.00 per week for each year that the boy is out of the school.

I believe that no other school in the country keeps so closely in touch with its graduates, or has so definite a record of them. Upon request, they send written reports every December, and last December, out of seven hundred and one graduates, only forty-seven reports were missing.

RECORD OF SEVEN HUNDRED AND ONE LIVING GRADUATES

Wood pattern and model making	4 per cent.
Machinists	7 " "
Instrument makers and general mechanics	10 " "
Electrical work	16 " "
Draughtsmen	18 " "
Architects	4 " "
Manufacturers	2 " "
Foremen and superintendents	11 " "
42 per cent. of the graduates who have been out ten years or more have risen to be foremen, superintendents, managers, or proprietors.	
Teachers and students	3 " "
Clerical positions	19 " "
Reports not received	6 " "

The per-capita cost during the past five years has varied from $105 to $113 as schools usually reckon the per-capita cost, or from $120 to $125, including every expense. The valuation of our site, building and equipment as carried on our ledger is $450 per pupil.

The Hebrew Technical Institute is not conducted solely as an end unto itself; we have solved at least one problem for our community and our country—that industrial and technical courses of schoolwork for boys from thirteen to seventeen years of age are perfectly feasible and practicable and that the expense is not prohibitive. But in conclusion let me say that we do not dwell upon the material side alone of this educational problem. We strive to teach our boys law and order; a love and respect for their home, their father and their mother—a lesson too often neglected today. Our boys become examples of manhood, good citizens and true patriots.

While we are striving to give the boys a practical educational foundation that will make them not merely self-supporting throughout their years, but competent to earn and accumulate sufficient wealth to relieve them of poverty and its attendant sufferings in old age, we nevertheless do not forget that a very important part of education is the development of character.

DEPARTMENT OF ART EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—George W. Eggers. head of dept., graphic arts, Normal School, Chicago, Ill.
Secretary—Mary A. Woodmansee, supervisor of drawing, Public Schools, Dayton, Ohio.
Secretary—Florence E. Ellis, supervisor of drawing, Public Schools, Cleveland, Ohio.

MORNING SESSION.—Tuesday, June 30, 1908

The Department met in Plymouth Church at 9:30 o'clock.

The meeting was called to order by the President, George W. Eggers.

The program was carried out as follows:

I. General Topic Viewed from the Standpoint of Society:
  1. President's address: "Has Art a Place in an Education for Efficiency?"—George W. Eggers, head of department of graphic arts, Chicago Normal School, Chicago, Ill.
  2. "Art a Factor of Culture"—James L. Hughes, chief inspector of schools, Toronto, Ont.
  3. "The Bearings of Art on Industry"—Charles Zueblin, professor of sociology, the University of Chicago, Chicago, Ill.

The President appointed the following committee on nominations:

Frank A. Manny, Ethical Culture School, New York City.
J. J. Rogers, Shaw High School, East Cleveland, Ohio.
Maude Lawrence, assistant supervisor of drawing, Cleveland, Ohio.

SECOND SESSION.—Wednesday Morning, July 1

The Department met in joint session with the Departments of Kindergarten and Elementary Education.

(For program see Kindergarten Department)

THIRD SESSION.—Thursday Afternoon, July 2

The Department met in Plymouth Church and was called to order by President George W. Eggers at 2:30 o'clock.

The program was carried out as announced:

II. General Topic Viewed from the Standpoint of the School:
  1. "Some Educational Deductions from the Art of the Great Periods"—F. G. Bonser, director of Normal Training School, Macomb, Ill.
  2. "The Place of Art in a Constructive Education"—Frank A. Manny, Ethical Culture School, New York City.
  3. "A New Basis of Art Education"—Emma M. Church, former director, Academy of Fine Arts, Chicago, Ill.

The committee on nominations reported as follows:

For *President*, Florence E. Ellis, supervisor of drawing, Cleveland, Ohio.
For *Vice-President*, C. Valentine Kirby, Manual Training High School, Denver, Colo.
For *Secretary*, Emma M. Church, former director, Academy of Fine Arts, Chicago, Ill.

The report was accepted and the nominees were unanimously elected.

The department adjourned.

Florence E. Ellis, *Secretary*

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

HAS ART EDUCATION A PLACE IN AN EDUCATION FOR EFFICIENCY?

GEORGE W. EGGERS, HEAD OF DEPARTMENT OF GRAPHIC ARTS, CHICAGO NORMAL SCHOOL, CHICAGO, ILL.

A land gifted by nature with fabulous resources is awakening after a century of wastefulness to the fact that those resources are not boundless. The very tardiness of its awakening adds to its haste in trying to conserve what is left of its forests, its fisheries, its mineral deposits and its beauties. Through whatever channel it has come, this almost frightened sense of economy has penetrated all our lines of thought: to *save* now—to save money, to save energy, to save resources, to save time. And among those gifts upon which nature has set her awful limit, time is pre-eminent. The great masses sensitive to this pressure begin to demand that education show more practical returns for the time their children spend upon it, and they make themselves heard by withdrawing their children from the schools until we ask, "What shall we do to keep children of fourteen at school?" "Prepare my son," says the average father, "so that he may live better than I do—earn more, enjoy it more." He usually thinks that this would be furthered if that son could learn some trade or profession in the public school—but he will listen to reason.

"Prepare these children," says the captain of industry, "to become skillful and economical producers—that we may compete with other nations in cheapness of production and ultimately surpass them in commerce and in wealth." And he would urge that we choose the boy's trade for him and bring him up in it.

And the educator says, "Prepare the children to live," and he comes with that cry of "Educate the whole child," which has grown so familiar to our ears.

Layman, manufacturer, and educator are asking for one and the same thing—education for greater efficiency—and what is more remarkable, they all seem to have the same recipe for it—industrial education. So industrial education, for better or for worse, is upon us—"a condition and not a theory."

At this point, however, all immediately begin to differ, some to say that industrial education means the learning of a trade and some that it means sloyd work, copying models for skill of hand—for there still prevails a belief among people that a child's faculties can be trained as separate things—head alone, hand alone, and heart alone—as if separate stones and mortar and shingles necessarily implied a building.

Industrial education, like anything else, may be constructive in character-making for efficiency or it may not. Look into some of the other subjects. Geography once upon a time meant a series of memory exercises. Geography today deals with the relation of the earth to mankind. We see that the old geography taught us many things which we did not need to know—the names of the capes along the north coast of Siberia, for example—knowledge for which the average student never has any use. So matters of that kind are eliminated from the new geography. Geography today, on the other hand, serves the student as a vehicle for his reasoning. It may show, for example, that a given country has a certain amount of rainfall per year: that the surface of that country has certain characteristics. Very well, "What industries will probably develop under such conditions?" It asks, "What products will that country send to ours?" "Or we to it?" "As a matter of fact, what commercial relations *do* we have with that country?" Now such teaching is constructive teaching, not because it gives the student facts, but because it teaches him to build with the facts which he has or gets. Such an education is in accord with the movement referred to a moment ago to get the most out of the things we have.

Now examine manual training in the same light. Geography, we said, was once upon a time a series of memory exercises—and no one thinks of it as such today. Manual training was, when it received its name, a series of exercises "to train the hand." Those who regard it as such today are, I believe, decreasing in number. Manual training today is constructive education. The student is given conditions. A circle of conditions forms his problem. These conditions comprise: first, some recognized *need* which is to be fulfilled; and second, certain available resources—material, and time, and experience for the fulfilling of that need. The student does the rest. With these fixed limitations about him, he works out his problem as the engineer, or the architect, or the inventor works out his, using those materials which are at hand according to the dictates of his intelligence. This, we believe, is one form of industrial education which makes for efficiency.

Now, what has art to do with an education for efficiency? It appears that an education for efficiency is essentially a constructive education, a building, a making, a putting together. Ruskin says:

> You may read the character of men and of nations in their creative work as in a mirror. A man may hide himself from you, or misrepresent himself to you, every other way. But he cannot in his work; there, be sure you have him to the inmost. All that he likes, all that he sees, all that he can do—his affection, his perseverence, his impatience, his clumsiness, his cleverness, everything is there. If the work is a cobweb, you know it was made by a spider; if a honeycomb, by a bee; a worm cast is thrown up by a worm; a nest wreathed by a bird; and a house built by a man, worthily if he is worthy, and ignobly if he is ignoble.

When we have made a construction and have satisfied ourselves that it meets all the physical needs of the case "and is good"—we have still to ask ourselves, "Will it please the eye which must always see it?" for is not that as much a part of its usefulness as any other of its properties? And if we can see that it will not please the eye, then it is not made in the best manner possible according to our light, and would better be destroyed—for *the best manner possible is the only manner in which we have a right to make it*, if we would make it at all.

And what is the educational importance of a training in the appreciation of beauty? In industrial work, taught constructively, the student is a maker of choices. To meet the given conditions he is thrown upon his own resources to select this plan rather than that, this material in preference to that, this mode of joining instead of some other. But in his constructive work the limitations set upon his choosing are positive—indeed much of the value of this work lies in that it involves his sense of the relations of cause and effect. If he is making a chair it must be stable and durable and comfortable to the human anatomy. If a house, it must be tight and keep out the weather. When we take up the fine arts, we find that his freedom for choosing is far greater. In this side of the work, therefore, we find him going into far subtler discriminations, hearkening to those whispered preferences within his own nature which love one curve better than another, which find poetry in this color combination more than in that—we find him making himself sensitive to finenesses in things beyond the mere adequacy of them. Enough has been said to show our position—that the training of the aesthetic sense is really a further training, a refining of the constructive sense. And is it not the subtle man, the sensitive man, the keen man, who stands, after all, for the highest type of civilization?

There is one more consideration. The captain of industry may have listened to this manner of reasoning with an indifferent ear. What will all this development of the individual do for commerce? It will do many things but we will mention only one.

Today the nations of the earth are all about as much interested in commercial supremacy as we are. It is closing down to a neck-and-neck race. Already we are looking to Germany for certain instruments in whose manufacture the Germans show particular skill. Already we look to England for certain materials honestly and durably made. Already we look to France for articles of beauty. Yes, even we of utilitarian America purchase millions of dollars worth annually from the country which began compulsory art education a hundred years ago—purchase, because of their beauty, things that are "made in France"—to say nothing whatever of things made in Japan.

Now, can not cosmopolitan America come forward to the present situation, aim to produce manufactures which are not merely cheap (as those of some nations) or adequate (as those of others) or honest (as some of ours are not at present)—but combining all of these qualities; make for our own use, and that of other nations, manufactures which are *ample*, *beautiful*, *perfect?* It would be toward such an end that art education would tend in educating the efficiency of the nation.

ART AS A FACTOR IN CULTURE

JAMES L. HUGHES, CHIEF INSPECTOR OF SCHOOLS, TORONTO, CANADA

Beauty and utility are always in harmony. Art is therefore not only one of the most practical subjects but one of the highest and most productive subjects of culture. Culture may be considered as the development of selfhood and the improvement of the powers of self-expression; as the strengthening of the mental powers; as the storing and enrichment of the mind, or as a training to qualify for greater happiness and broader vision by the appreciation of the true and the beautiful in the works of nature and of the great master minds of the past. Art is an important factor in these four elements of culture.

The most essential element in real culture is the kindling of selfhood, the revelation to the child himself of his supreme power so that he may become conscious of originality and gain a sure faith in himself and in his power of independent achievement. Each child has some power center which, if aroused and made the leading element in his executive work, will kindle his whole nature and stimulate his most energetic efforts in self-expression. Such self-expression along the line of his best power is the only sure way to develop a true faith in himself, and the development of a true vital faith in himself is what gives genuine value to culture. The kindling of a child is therefore the most important work in his culture.

All children are not kindled by the same subject. Some are kindled by literature, some by science, some by music, and some by art—more by art than by any other department of study. It is easier to reveal to a child the fact that he possesses original power by art-teaching than by any other form of training. Art is therefore an essential element in the culture of childhood, because of its value in general kindling power. It is an important element of culture, too, because there are so many children who cannot be really kindled by literature, or science, or music, or mathematics, or history, who may be aroused to harmonious activity by art. If these children are not allowed to illumine their lives by art-study and artistic expression the result will necessarily be restricted and barren lives. Nothing can be more sad than a barren life. No life should be barren. No life can be fully productive unless it yields its true fruit in full measure. No life can yield its richest fruitage unless its real selfhood has been trained to be self-active.

Interest is the vital element in culture. Each child has some department of power which is his interest center. The interest that arouses and defines, that awakes and achieves, must act from within the child himself, and it must have appropriate materials and opportunity for stimulation and activity. With a narrow curriculum many children were never truly kindled, and they passed through life "deaf and dumb and blind to a million things;" indifferent negative beings, instead of energetic and positive as they should have been.

Interest aroused in the central department of each child's power so fully as to lead to original expression becomes the supreme agency in producing definite and energetic action of his whole being, and therefore one of the chief aims of education should be to find the interest center of each child and provide opportunities for original work to develop original power. Art is the only subject that can develop the central power of some children, and it has a wider influence in the development of a consciousness of original power in all children than any other subject except manual training, and it is one of the most essential elements in manual training

Art gives a new form of expression, which may be developed easily and joyously into self-expression. Every new form of self-expression strengthens the powers of self-expression already possessed by the child. All forms of self-expression are in harmony with each other, and are mutually developeng to each other. Each new power broadens the mind and makes it more fully conscious of its powers. Each undeveloped power prevents the perfect growth of all other related powers. The revelation of a new phase of selfhood to the child is a notable epoch in his growth, and in the awakening and defining of his powers. Art is the highest form of self-expression for many children and it may be a high productive form of self-expression for all children.

Art strengthens the mental powers. It cultivates the observant powers and accurate observation is the fundamental basis of clear and definite thinking. Seeing is a mental act. Culture in correct seeing means culture of the mind, not of the eye. We see only those things to which we pay attention. Thousands of pictures form themselves on the retina each day that are not seen. The mind attends only to those pictures in the eye which are related to appreceptive centers formed in ti by experience and training.

Art trains the reasoning powers. Definite seeing leads to accurate thinking. Accurate observation lays the foundation for correct judgment. A considerable portion of our reasoning depends on our conceptions of size, form, color, and relationship; therefore art by the cultivation of new and exact apperceptive centers of size, form, color, and relationship, gives a logical preparation for clear thinking.

Art provides the highest opportunities for the culture of the imagination. Real art is not a mere reproduction of beautiful things that have been stored in the memory, nor is its highest work the representation of the best work in nature. True art is more than this. It is an expression of the highest revelations of a lifetime in new forms in harmony with the individuality of the artist. Art molds material things into new and higher forms; it beautifies them with more exquisite and more harmonious colors; it transforms them into more ennobling expressions of the highest spiritual evolution of humanity. But art does not stop here. It deals with the unseen and attempts the interpretation of the infinite; it reveals the most transcendent visions of spiritual insight. Whether art be reproduction, or representation or transformation, or spiritual revelation, it exercises some form of the imaginatoe, either representative, or constructive, or creative, and by exercise develops it and qualifies it for fuller, freer activity. Our highest powers are capable of most rapid and most comprehensive development, and all powers grow most rapidly when used for highest purposes. As art is such a high form of self-expression, it necessarily follows that it is one of the most perfect agencies for developing the imagination.

Art develops originality and qualifies man to aid in increasing human wisdom and power, and in the promotion of human happiness by the revelation of new thought, new forms of beauty, and new conceptions of aesthetic and spiritual evolution. We should leave the world richer than we find it. Our only possible gift to civilization is some true revelation of our spiritual power. The development of original power is therefore the supreme element in education. Original power can be developed only by the exercise of some form of self-expression in constructive invention, oratory, literature, music, or art. Art is certainly one of the highest of these forms, and therefore it is one of the most productive agencies for developing original power.

We are usually too willing to be satisfied with high achievement in the power of expression by the child in oral language, written language, music, manual training, and art. This is a mistake, because expression alone adds nothing to human power or wisdom or vision. Expression at best is but a preparation for self-expression. It is not even that in the truest sense. Self-expression, or originality, is not only the desired end of education, but the process by which the most comprehensive, the most definite, and the perfect forms of self-expression may be acquired. Self-expression is infinitely more productive than expression. The passive forms of expression are little better than the passive forms of accumulation in developing the child. The true function of selfhood is the exercise of original or creative power. When the creative functions of the child are assumed by the teacher, or are left out of consideration altogether, the child's culture is weakened at its most vital center. No other school work affords such universally attractive opportunities as art for the expression and development of originality, and for the revelation of the growing inner life by creative activity in improving and beautifying the conditions of our environment.

Art is of special educative value because it so readily reveals to the child himself the possession of original power. The most important epoch in the life of a child is the time he gets a revelation of his special power, a consciousness of the fact that he has independent creative power. The central element in strong character is a positive self-reverence based on a conscious recognition of original power to be used for humanity. No other school-study gives such excellent opportunities as art for revealing to a teacher the great fact that the child has original power. The results of a child's original efforts are more distinctively manifest, more objectively real, and more easily achieved in art than in any other subject. This is the culture that gives real value to all other kinds of culture, and that arouses most effectively the powers of the mind.

Art is a very important element in the education of a child because it qualifies him for the true interpretation of the great works of art. All the great ideals of the world's leaders in the progress of humanity toward a higher civilization are stored for the development of the present and for coming generations in literature, art, and music. The schools, should train all children to be able to search intelligently in the treasure-houses of the race, and to interpret correctly the transcendent visions of those men and women who have stood on the mountain peaks of development, and who have recorded their higher visions for all who come after them. The schools try to train their pupils to interpret literature as a means of securing greater happiness and higher development; they should also train them to comprehend and interpret the great ideals that are preserved in art and music for the enrichment of the race.

I am never so conscious of a defect in my culture as when I stand with a painter before a great picture, or walk with an architect in a grand cathedral. The artist or the architect sees and feels and thinks a thousand things unseen, unfelt, unthought by me. I am relatively blind and unconscious when compared with him. The things he sees and feels, the great thoughts that stir and lift him, are recorded in the picture for me, as well as for him, but I cannot interpret them for lack of the culture which I failed to get. I cannot see and interpret the records because I was not trained to see and interpret. It might have been possible for me to have seen clearly and interpreted truly, and my whole intellectual and spiritual life is narrower and weaker because of my lack of the culture that would have enabled me to do so. The fact that we could not all be trained to see what Ruskin saw in color, or in architecture, is no reason why we should not be trained to see as much as we have natural power to see. Our duty as educators is to kindle the children, and cultivate their vital intellectual powers so fully that they may be able to gain as much of culture and of uplift as possible from all the elements of culture and uplift. Art is one of the most productive of these elements. It is a key to many great storehouses of the best culture. We wisely try to train our pupils to be capable of comprehending and enjoying and using the emotion and thought stored in literature. We should for exactly the same reasons train them to see and understand and enjoy the records and revelations of the varied forms of art in painting, in sculpture, and in architecture. We should leave no child without the power to appreciate and interpret the works of the great leaders of the past.

The child who has not been taught the fundamental principles of balance, rhythm, and harmony is blind to the real beauty of the designs in carpets, curtains, and wall paper. The child who has not been trained to recognize correct forms and proportions and to understand the relationships of forms and proportions cannot truly appreciate the exquisite beauties of sculpture or the majestic beauty of a cathedral. The man who understands the correct principles of literary composition sees in literature many beauties in literary form that bring no joy to the untrained; the man who has a knowledge of the principles of composition in painting gains infinitely more of happiness and of culture by studying a picture than a man who has not learned those principles. The principles of composition in art are as definite and as simple and as easy to teach and to understand as the principles of literary composition, and every child has a right to know them.

True art-teaching multiplies our power to see beauty, and harmony, and unity, and design, not only in the greatest art productions of man but in the works of nature. The man whose color sense has not been trained is not able to recognize the rich harmonies of color that are seen by trained eyes. The melody and the beauty exist for all, and are seen and understood and appreciated by all in proportion to the amount of art-training we have received. Oh, the difference between the trained and the untrained!

One of the most effective lessons I ever learned was given by a teacher of art who showed me a collection of Japanese pictures chosen especially as illustrations of the exquisite color harmonies developed by those greatest students of color. Beside each picture lay some common object. The harmonies in blues and grays of that first picture I saw reproduced in a cinder from the ash heap. The harmonies in the tones of browns were beautifully seen in the inner side of a piece of bark taken from an old and decaying log, and all through the series of pictures, each picture had its color harmonies reproduced by moss, or bark, or shell, or fungus, or by some common thing that most of us pass without any recognition of its beauty. It means a great deal to a young life to be made conscious of the fact that even the commonest things that lie unnoticed around us possess some elements of beauty equal to the most fully developed conception of the race. The revelation of beauty and harmony hitherto unseen prepares us to believe in the higher evolution of the race, in order that it may become capable of comprehending the higher beauty and harmony yet to be revealed. It helps too to a clearer understanding of the universe and its Creator to realize that even the most apparently valueless things possess transcendent beauty when we become capable of seeing it.

But the lesson that we are in the midst of beauty, and the training in power to see beauty, great as they are, are not so important as the habit of searching consciously for the beautiful. The greatest modern art teachers make alertness to beauty and responsiveness to its influence the supreme aims. The true teacher often says to her pupils: Draw or sketch or paint for me the flower or tree or tower or porch or vase or landscape you think most beautiful, or bring me the pattern or picture or object that you think most beautiful. At first it is enough that the child shall make the choice, but later the reasons for the preference should be given.

Of course it is essential that the choice of each child should be recognized as of absolute value to him, and reverently respected by his teacher. If his choice be inferior, his taste cannot be raised to a higher plane by the adoption of the choice of another. The making of choices, and the explanation of the reasons for making them, form a very productive exercise; but the chief value of such training is the development of a persistent tendency to search consciously for the beautiful and true in our environment and in our conditions. Constantly relating the best outer to the best inner will lead to a conscious purpose to make the best inner become the outer. The habit of choosing the most beautiful in our environment will aid in the development of the most beautiful characteristics of life.

Ideals transform individuals, and ultimately transform national life. Ideals become vital in our lives by consciously choosing them.

Art has a high culture influence because it tends to lift the soul above materialism. Every working-man should know that he can create and reveal ideals. So will his life be ennobled. Our material life should be spiritualized. The spiritual in literature and music and art is lifting the race slowly towards the Divine. This is the real education.

Mr. Morris says: "Art is for the few." This is a narrow view. It is the limited thought of an artist, not the broad view of an artistic educator. Each soul should have those powers trained which tend to bring it into conscious relationship to the universal spirit. Art can do much to achieve this grand result. Each new apperceptive center of beauty and harmony qualifies for a higher and deeper consciousness of beauty and harmony, and promotes our conscious growth towards the Divine.

With grander ideals of liberty and of individual power, and of the possibility of human achievement as we grow towards a truer spiritual emancipation, let us teach the best we know of art to all the children as a basis for a nobler art and for a purer individual and national life.

THE BEARING OF ART ON INDUSTRY

CHARLES ZUEBLIN, BOSTON, MASS.

Goethe once said: "Fortunate is he who at an early age knows what art is;" which you may take as a platitude, but Philip Gilbert Hamerton has said that in the whole realm of art literature you will hardly find a sentence of equal significance.

We all have had the experience, either in ourselves or in others, of trying to overcome years of neglect or bad teaching; and often no amount of information, no amount of subsequent training, will neutralize the mistakes of the schools. I fancy most of us have gone through some sort of art-training. Unfortunately for many, that usually has meant merely a sort of encyclopedic survey of the great painters and sculptors of the world. Unless we can learn some of the elements of art, we cannot by mere knowledge of art products remedy our deficiencies.

I want to speak here very briefly about the function of art with respect to occupation, social welfare, and culture, believing that we shall satisfy these needs best if in preparation for occupation we give students a knowledge of form, color, and design; if in preparation for social welfare we consider especially the beauty of environment; and if as a contribution to culture we consider the fine arts and the lesser arts in harmonious relations. Those of us who were educated in the public schools, or even in private schools, twenty or thirty years ago, will have had scarcely any instruction in form, color, and design. I remember very well the style of public-school instruction—if I may quote a personal experience—which obtained in Philadelphia at that time. I stayed in the country late one autumn, and came into school every day, with permission to take one session until two o'clock. The teacher of my class stayed through the lunch hour every day, and for the first time I learned something of her skill in freehand drawing, when she prepared the blackboard by a slate pencil for the coming chalk lessons. That was the character of instruction given throughout the schools of Philadelphia at that time. At the end of fifteen years of school life in Philadelphia I am perfectly sure the average student did not have the remotest conception of the elements of art. I presume the other schools were not much better. Even today you go into schools where teaching in art is given; it is still called drawing, and that drawing is still too seldom the means of recording one's own impressions.

Tolstoi defines art as the power of telling someone else what one sees. A little boy gave to his teacher at one time in a sketch his impression of the vacation school by an attempt to show the boy who went and the boy who did not—two very grotesque figures, suggestive of the before-and-after of patent-medicine advertisements. I have used it as a lantern slide, trying to show how we could make use of our impressions, no matter how rude the art. The grotesqueness of it always strikes the audience, and I have taken it as a reflection, not on the boy, but on the audiences, that they did not get an idea when they saw it carried out, because of the crude form. He showed the idea as it came to him, but of course without training he did not have the power of recording it skillfully, of making it vivid. The kindergarten is supposed to begin the removal of those deficiencies from which we suffer, by teaching children form and color. As the kindergarten methods penetrate into the grades, there is given more of the conception of design. I have had the pleasure of visiting some of the manual-training schools in this country, and I would speak especially of the Mechanic Art School in St. Paul, where the endeavor and actual accomplishment with every child are teaching him to express his own ideas. In Chicago there has been the introduction of color-work with children, and it has been found that, while only 50 per cent. can reproduce in black and white, about 99 per cent. succeed in the use of color; which implies that the child has in him usually some artistic idea until crushed out by false methods of instruction.

It has been the custom to stuff children full of facts; as someone said recently, we paraphrase the old idea about the little star: "Twinkle, twinkle, little star, teacher's told me what you are." Occasionally now they are allowed to find out these facts for themselves. Very few of them, however, acquire these very simple fundamental things—a conception of form, color, and design.

What is the economic value of this form of teaching? The greatest necessity of the workman of today is adaptability. He is frequently stranded for lack of it. I remember living with a friend in London who kept bachelor's quarters, and marveling at the skill of his domestic—a man who seemed equally capable in the garden, kitchen, or garret. I wondered that such a versatile man should be found in domestic service. My friend told me that he had been a skilled watchmaker who had perfected his special skill so assiduously that he had failed to do anything else, so that when they invented a machine which could do his work, and that was taken away from him, he was stranded; and so he became a house servant. That is the condition of the majority of workmen today, if good workmen; if comparatively inferior and unambitious, the condition will not be so difficult. In the schools of today the power of adaptability should be given chief attention; children should be taught to use their hands to express the ideas of their minds. It is astounding to see what little children can do with clay. Those of us who never got beyond the crude mud pies which we taught ourselves to make after we had escaped from school can scarcely realize what children can do in the schools today.

I think sometimes we hear rather excessive denunciations of the value of reading and writing from such people as John Ruskin; yet, after all, it is asked whether in learning so much from books we have unlearned the capacity for observing with the eyes and executing with the fingers. Beginning with clay and other plastic materials, we can carry children up to a recognition of what a soft finish on a table means, contrasted with the mirror-like tables with which we have been familiar—to realize that the texture of wood signifies something. This is an equipment for industry which it may take years for us to appreciate.

You will witness this curious phenomenon in the world today: a man who can manage men can go with ease from one situation to another; he can go from being an engineer on a railroad like the Illinois Central to the position of an engineer on the Panama Canal—as happened here recently—simply because he has that power of adaptability. But the average workman has not that capacity, and is thus limited in his occupation.

John Ruskin's famous dictum in regard to good architecture is, first, that the material should be good and true; second, the ornament natural; third, the designer left free to work from his heart. We have stifled that capacity in the workman, if he ever had it. I do not believe, of course, that the change of methods in schools will immediately bring large rewards; it will probably bring rebuke from employers. But, after all, there is a growing demand for individual products, and the workmen themselves will not long be content with the humdrum limitations of today. People say, however, that this development of handicraft is reactionary. But that is not the case. There is a movement which is running counter to that of machine industry, which comes very largely from the fact that even in the midst of the mechanical triumphs of today we are insisting upon individual workmanship. The time is coming when either we must go back to lead a primitive life, or we must have the opportunity to express individuality in workmanship; and it is being hastened in the schools today by giving children, not a knowledge of the great sculptures, but the power of design, which emanates from a knowledge of form and color.

A few years ago, after an extension lecture which I gave in an Iowa town, the drawing-teacher, in discussing the subject, gave a little exposition on the blackboard of the meaning of proportion, and drew the outline of a house, and put the windows and doors in where they ought to be. That was twenty years after I left the grade schools, and yet it was the first intimation I had had of what proportion meant in a building. I am afraid there are a great many people quite as ignorant as I was as to any proper conception of form. The most graphic illustration of this is in the decline of colonial architecture at the time we supplanted humble bricklayers with skilled architects. The old colonial buildings are invariably satisfactory in form and color. The builders had no education in the schools—only instinct. They had a tradition of form. The moment that generation died out and the trained architects of these schools undertook to draw their conception of colonial architecture, it began to decline. They have not in their souls any tradition of proportion, and they draw something out of their minds which is mathematical and not artistic. Half a century ago in England they were talking about the significance of the oval. Everything was built upon the oval. Everything today is built upon the city building-lot. The conception forced upon the architect is the city building-lot, and this again is mathematical, being compelled to produce a thing which a mechanical civilization wants.

A friend of mine was standing, or rather sitting, reverently looking at the Venus di Milo recently, when a woman brought in a troop of American girls; and they all stood, craned their necks, and looked at the Venus. Then she led them over and they looked at the fragments. They looked as tenderly at the fragments as they looked at the statue. They had seen every element of it preserved, and they were satisfied—checked it off, and went home. That is not the attitude of the illiterate. It is the attitude of the average untrained mind until he has seen such an amount of true art that he *knows*. That is the remedy—to see enough until one knows. We can do this in the schools. I repeat, therefore, that in preparation for occupation the most necessary thing is to get the power of adaptability; and that can best be done, not by definite technical training, but by elementary teaching in form, color, and design.

To secure social welfare we must secure beauty in environment. We have made the greatest progress in the decoration of schools, and the landscape architecture outside the building has advanced marvelously in our day. Many will remember the bare white walls and blackboards of the old-time schoolhouse, with nothing to relieve the bleakness unless the teacher could not resist the impulse to put in plants. Now we frequently have good pictures, altho too little discrimination and too many of them. Then we have better school grounds. Unfortunately some schools have none. I have in mind one in Chicago which stands flush with the sidewalk. The children must play in the street. Back of the school are two very little places where the children could not all stand up at once. Of course we cannot decorate those tiny places. We must have courage to attempt greater things. We must get a beautiful environment for the school. Not that the children shall be told just what that means, or that they shall be taken up in order to these pictures, as we would in a good religious ceremony go around and reverently view each one; but in some way or other they will absorb the influences, if given the opportunity. In our efforts to teach new ideas we have unfortunately too often taught them in the same way as the old ideas. An example of this is the two vacation-school children who were viewing with the greatest possible interest the eagles in a cage in Lincoln Park. One said: "Come on, let's go away or we will have to draw them." They enjoyed them to the utmost until they thought of some formal task. The unconscious influence of those noble birds would have been equally beneficial.

But what are you going to do even with a beautifully decorated building, if after leaving it the children must be turned loose amid the conglomerate architecture of Lake Avenue? The best teacher cannot eradicate the influence of bad grammar at home, and the best art teacher cannot eradicate from children the impression of the advertisements along the elevated and steam railroads. Even private residences bear advertisements, probably because the backs and sides of almost all houses in Chicago are unworthy of anything but advertisements. I am not so sure but the owner is right to have some sort of paint to cover up the sort of brick that you see in some of those buildings. The child cannot go out of this building and keep all that he gets here. Consequently we shall have to undertake a reformation, training this generation as well as the next. That again means going down to the fundamentals. A great many people have on their walls beautiful oil paintings and in their houses hideous furniture; and they do not know it. I do not know whether it is that they put all their souls into the old masters and divest themselves of their surroundings. It is true that music and the fine arts are of infinitely less importance than the furniture, the hangings, and the kitchen fittings. We can never eradicate those impressions by any amount of education in the fine arts. Until the environment becomes harmonious we are going to undo the work of the schools. If the schools are going to effect anything, they must be met half-way by civic and home improvement.

Of course, in cultural improvement we must get a considerable notion of the fine arts, because they are intimately related to culture. Music, literature, sculpture, and painting—we must know something of these if we are to get a knowledge of art; but they are rather the means of finding out things than real knowledge. The average woman's art study is merely to finger the lexicon by cataloging art products. That is valuable knowledge, but it gives us not one single aesthetic conception. There again we have to go down to the fundamentals. As Ruskin said, to study carefully the Grand Canal of Venice was worth a visit to all the galleries of Europe.

Sargent has painted many beautiful portraits of the millionaire and the millionaire's beautiful daughter, but he has never done anything for a private patron like his decoration for the Boston library. No painter could rise to such heights in painting the picture of any millionaire as in painting some beautiful and ennobling subject, something that touches his soul. A wonderful influence is sweeping over the country, giving the people a conception of the difference between mural painting and easel painting—a work of art related to a building and a work of art not related to anything. We gain thus not only greater artists, but a culture not merely for the favored people who can go to Europe, but for the multitude who, if they cannot have this abundant knowledge, at least can grasp the fundamental principles that will teach them something of harmony. I take it that it is not impossible with the forces already at work in the schools to teach form, color, and design so as distinctly and valuably to influence the mind of the child and lay the foundation for this culture which will give us that sense of harmony and make for the child of the future a more beautiful environment for the expression of his ideas.

SOME EDUCATIONAL DEDUCTIONS FROM THE ART OF THE GREAT PERIODS

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Any discussion must be tested finally by its relation to fundamental principles. A brief statement of educational principles, therefore, follows.

Education has reference to the development of an individual living and working among other individuals. It refers to the development of the individual himself, but he is measured in terms of his efficiency in serving the needs of others.

In mental development there are two factors of growth: the self-active, unfolding agency, the inner or subjective factor; and the outer world, the environment. The interaction of these gives experience.

Only when situations are regarded and attacked as problems to be solved is mental development accomplished. It is only when a problem, real to the child, confronts him, that he exercises his power to do and thereby grows.

Two factors appear as all-controlling in the selection of the materials of education, the one social, referring to the worth of the material itself; the other psychological, referring to the interest, capacity, and method of growth of the child mind. These two determining factors, the social as a measure of worth, the psychological as a guide to sequence and method, are to be applied to the selection of every item of subject-matter. May we briefly apply these factors in relation to art education:

The child is in active contact with sources of nearly all forms of art material.

Nature, with its line, dark-and-shade, color and composition, is open to him; architecture, as exhibited in dwelling-houses, libraries, school buildings, churches, and other public buildings, is rich in its materials; industrial art, as shown in the design and decoration of all kinds of textiles, the exterior and interior of walls, furniture, pottery, machinery, tools, utensils—everything in all man's great variety of equipment is a constant suggestion of the beautiful in relation to the useful; masterpieces in sculpture and painting, or excellent reproductions of these are now within the easy reach of nearly every child; everywhere are human beings engaged in every phase of institutional life. Thus, the child is in living contact with almost every possible source of art material and is vitally interested in it. The great variety of work in the school subjects—nature-study, geography, history, literature, and manual and household arts—are constantly offering opportunities and motives for development of appreciation and expression in all forms of both industrial and fine art.

On the psychological side, the child is characterized by great activity in all its forms. Interest is high in all living things and especially in persons. Attention is absorbing but rapidly fluctuates. Sense organs and muscles but gradually adjust themselves to fine co-ordinations. The motives in art expression which most strongly appeal are those of free, active life, expressed with bold and hasty strokes. Imagination is vivid. Technique is subordinate to thought content. Expressive instincts, constructive instincts, creative instincts, and decorative instincts are all strong. As adolescence develops, interest in human action grows into interest in human motive, the power of abstract thinking develops, and the interest in symbolic representation and decoration becomes prominent. Appreciation is inherent from the beginning and highly responsive to cultivation. On the psychological side, then, the child is equipped with all of the latent possibilities for the development of both a fair measure of skill and a worthy degree of appreciation.

To summarize, then, the child is in the midst of an abundance of sources of materials, opportunities, and motives for art expression and appreciation, and he is equipped by nature thru instincts, capacities, and interests to respond to all of these.

We now may turn to the evolution of fine and industrial arts that we may see whether we may derive any substantial helps from the great art periods in solving the problems of present-day practice.

Perhaps that fact most significant of all for us is that both the fine and the industrial arts have always flourished together. As William Morris observed,

> It is only in later times . . . . that . . . . the great arts of architecture, sculpture, and painting, and those lesser so-called decorative arts, have fallen apart from one another. And I hold that, when they are so parted, it is ill for the arts altogether.

And Reinach notes that

> The Greek artisan . . . . even in the humblest crafts . . . . showed himself the imi-

tator and sometimes even the rival of the great masters of his time. We may say indeed that there was no great difference in Greece between high art and industrial art, for artists and artisans sought for inspiration from the same sources, and displayed the same unerring taste.

It is said further,

> Had all the productions of Greek architecture, sculpture, and painting vanished, leaving no trace behind, the evidence given us by the utensils and household vessels, articles of ornament, and equipment of all kinds . . . . would alone convince us of the incomparably fine artistic feeling of this highly gifted people.

In every great art period, the poorest household utensils, and the implements of the common, work-a-day world, as well as the divinest creations of the fine arts, have shown the common expression of the true artistic instinct.

A second significant fact is that every period has enforced the value of study and the inherent worth of all phases of nature, society, and the human mind as motives in art. Nothing has been found too common or simple, nothing too sublime or sacred, to lend its influence in beautifying the habitations and surroundings of men. There follow several illustrations of this truth, chosen to show variety and range rather than completeness.

In the Greek period plant and animal forms were extensively studied as is witnessed by the great variety of forms in the decoration of cups, vases, and other pottery, drinking-horns, coins, terra cottas, friezes, etc., etc. Conventionalized designs, both of plants and animals, abound. It is needless more than to mention the wonderful development and use of geometrical design, spacing, repetition, and rhythm. Architecture found its development in the erection of temples and public buildings, incorporating elements of religious dignity, stability, and simple purity. The physiological expression of human attitude and emotion was studied with the utmost care.

In the early Christian period there were established the splendid possibilities of architecture growing out of realistic and allegorical expression of religious history, doctrine, aspiration, and hope. The Basilica of St. Paul without the walls, Appolinaire, and St. Sophia are typical examples of this religious influence.

The Romanesque period marks the extent to which conventionalized symbolism may subordinate everything to moral and religious motives. Architecture developed in majesty and power as is evidenced by such structures as the cathedrals of Worms and Speyer, St. Sernin of Toulouse, and the Baptistery at Florence. Sculpture and painting conform to motives for church decoration and center in religious allegory. The highest industrial art was developed to decorate doors, choir screens, pulpits, windows, vessels of the mass, and other church equipment. Tradition dominated and nature was forgotten.

The Gothic period brought a "brilliant revival of realism." The flora of the country was studied with "loving attention" for motives in decorative design. The realism and optimism give a free, uplifting, airy, and exalting quality to the architecture and plastic art of the period. Motives from all possible sources—legend, scripture, nature, agricultural labor, the sciences, crafts, arts—all are made to contribute to the variety and richness of the period.

The Renaissance saw the utilization of almost every conceivable motive in art. Classic forms and sources were studied with almost fanatical enthusiasm. Yet the period was one of originality, variety, and initiative. Here art attained its most poetic expression. Cathedrals, palaces, castles, commemorative arches, all stand as monuments to the architectural genius of the period. Man at his best—in his history, his daily life, his religion, and his aspirations—became the highest motive in graphic and plastic art. To mention the names of Titian, Tintoretto, da Vinci, Raphael, Michel Angelo, Correggio, the Van Eycks, and a host of others of this period, is to suggest the variety of motive, technique, and accomplishment, in all fields of art.

The more recent period is perhaps but a continuation of the Renaissance movement. Variety and individuality are dominant characteristics. Initiative is evident as shown by the experimentation in the possibilities of novelty, altho much of this is amateurish and is wanting in depth of purpose and motive. The naturalism and the idealization of common things—Corot, Dupré, Millet, Inness, Bonheur—suggest the possibilities in the work and surroundings of common life.

From this mere glimpse into some of the greater art periods, it seems to be true that all enforce the significance of the study and worth of every field of nature, society, and human life as motives in art.

A third point, differing from the foregoing only in emphasis, would offer that all periods show the possibilities thru both industrial and fine art of making the common things of life, those pertaining to shelter, clothing, and food, as beautiful as they are useful. Both artisanship and art have ever gone hand in hand in the decoration of walls, furniture, and household utensils.

One other fact is of noteworthy significance. In every period, art has developed in close relationship to other vital human interests. Examine the coins, the vases, the statues, the monuments of architecture, and the paintings of any period, and standing plainly revealed are the stories of its heroes, its estimate of the worth of its industries, the ideals of its institutional life, its conception of human vice and virtue, and the aspirations of its moral and religious hopes.

Summarizing these four generalized facts from the great art periods, they are: (1) That the fine and industrial arts have always flourished together; (2) that the whole world of nature, mind, and all their varied relationships have motivated art expression; (3) that the common things of life have ever been of high importance in stimulating decorative and representative expression; and (4) that in every period art has developed in close relationship to other vital and dominant human interests and activities But those are all but phases of one great truth, that in all periods, and among all peoples, every form of artistic expression has come from the heartfelt needs of the whole people, has been the expression of the artistic instinct thru beautifying the materials of vocational life and idealizing and beautifying the conceptions of social and spiritual life.

While these facts enforce their own significance for art education, it is believed that explicit deductions may be of worth in establishing principles upon which to base the selection of materials and the method of their development in our practice.

From the history of art and the needs of the present, both social and psychological, it is evident that the purposes of art education are two: To cultivate appreciation of the beautiful wherever found; and to develop the power of self-expression. Few have the capacity to become artists, but all have opportunities to appreciate works of art. All of us have much to do in determining whether our surroundings shall be ugly or beautiful. It is the function of the public school to cultivate discrimination, taste, and appreciation in art, just as much as it is to develop taste and appreciation in literature and music. All have the latent capacity for appreciating far more than they can express. I can value and appreciate the decorative designs in textiles, pottery, friezes, or household furniture; but I cannot successfully produce them. I can respond with a thrill to the perfection and beauty of the Venus of Milo, the Victory of Samothrace, or the Apollo of Belvidere; I cannot make them. I can feel awed and subdued and uplifted by the Parthenon, St. Peter's, Rome, or Westminster Abbey; I cannot make so much as a plan for the simplest element of one of these. I can respond to the realism of Titian, Rubens, Millet, or Vereshchagin; to the poetic expression of Halls, Ruisdael, Burne Jones, or Alma Tadema; to the symbolism of Michel Angelo, Raphael, or da Vinci; but I cannot make artistically the simplest representation in stone or on canvas. For most of us appreciative insight is a thousand fold more to be desired and more possible of accomplishment than skill in production.

But some degree of skill is also possible to all. As the use of words with some accuracy and elegance may be cultivated, so also may be the capacity for graphic and plastic expression. The values of expression in clearing up ideas, and in securing appreciative insight into the fuller meaning of artisanship and art, are of much significance. Every child should have an opportunity, also, to find himself. We cannot afford to have a possible artist remain a crude craftsman or unskilled workman because of want of opportunity for his development.

Cultivation of appreciation and of the power of self-expression, then, are the purposes of art education. In their order, what are the means for realizing these ends? We said earlier that the materials for appreciation are all about the child. Nature with its landscapes, its sunsets, its plant and animal forms, with their action and color, its form and color in stones, shells, and metals, its water with its life and its color, its phenomena of storms, of snow, of the changes of seasons—all about and every day nature offers a most various and beautiful source of material.

Architecture has not begun to be appreciated for its value in decorative design and its opportunities for the study of many classic forms. There is hardly a town or a city in this country that does not offer opportunities far beyond any use that is ordinarily made of them. Dwelling-houses, schools, churches, libraries, and other public buildings might be studied with splendid results in stimulating and cultivating appreciation.

Industrial art may also be so studied that it will be rich in its values for cultivation of taste. Textiles—dress goods, carpets, rugs, millinery—fabrics of all kinds and for all purposes, may be studied from the standpoint in connection with textile industries and domestic art. Furniture, wall paper—household decoration as a whole—is well worth while; china and pottery offer one of the best sources for the study of decorative design; the decoration of books and magazines; jewels, medals, coins, utensils, tools, and equipment from every vocation in life—all are at hand with their almost overwhelming variety of designs and motives, all of which, when studied aright, may be of great value in cultivating appreciation. These may be studied, not as isolated subjects, but in vital relationship to these industrial materials as they most naturally arise in the course of study. Our study of the pottery industry finally took us far afield into the realm of Greek decorative design, but the study was profoundly more significant for the children than an isolated study would have been, for they saw the relation of a high art to a familiar and common industry.

Still another much advocated but little used field of study for art appreciation is that of the masterpieces of graphic and plastic art. If originals cannot be had, excellent reproductions are easily available. I do not mean analyzing or dissecting the pictures for elements of technique and structure, but trying to get the story and feeling the author tried to tell. Why did the author paint this picture? What did he wish to express? Try to tell the story in words. But most of all, try to lead the child to feel that he cannot tell it *all* in *words*. The very beauty of the picture is a subtle something that can't be expressed in words, and when that feeling comes, appreciation is safe. If you can say nothing of a picture that will help to arouse in the children the feeling that lies beyond words, hang it before them and let it tell its own story.

A last element which is offered as having a place in the development of appreciation is the cultivation of some ability in production. Acquaintance with an activity begets interest in it. Those most appreciate a product who know from inner experience the work involved. Some participation in the making of representations and designs is of much value here. To summarize then, it is offered that appreciation may be cultivated by a study of nature, of architecture, of industrial art, of the masterpieces in graphic and plastic art, and by work in drawing, painting, modeling, and other means of decoration and representation.

Skill in expression may be developed through free work in representation, directed and refined by the teacher as opportunities appear, using motives from immediate life interests. Design and decoration, probably first appearing in relation to the placing, spacing, and repetition of motives used in free expression, call attention from the beginning to prominent fundamental principles of form in both industrial and fine art. In all media used—pencil, paint, paper, cardboard, textiles, clay, wood, metal, or any other material—attention to these elements of form and harmony must be as constant as is attention in English to oral and written expression if correctness and elegance are to be attained. Of course, here, as in all work in expression, growth and power will be secured only in so far as there is real motive. Whether it be in words, or paper, or paint, or clay, or what not, be sure the pupil has something to express; then you may help him to express it well.

A remaining element helpful in the development of skill in expression is the masterpiece. Excellent pieces of workmanship in every respective field, under consideration—decorated china, a well-designed rug, a beautiful wall paper, an artistic book cover, a well-made chair, a good picture—anything of high excellence showing the qualities in which the pupil is endeavoring to develop skill, will help him. In all expression work, imitation is a factor not half enough appreciated, even in oral reading. I do not mean copying, but having correct sense perception which will leave correct images and ideas in mind to serve as standards to which to attain. Masterpieces in art should serve just as large a purpose in the development of skill in expression as should those of English in cultivating the qualities of style. How can one show the principles of decorative design so well as by pieces actually embodying them? After fair attempts have been made to express action, how can you help the child more to a correct conception than by showing him for his study "The Sower," "The Gleaners," "The Escaped Cow," "Aurora," or other pictures fitting the occasion? For every element of technique—perspective, placing, tone values, composition, etc.—illustrative masterpicees are of the greatest value and importance.

Thus thru free expression, design and decoration, and the use of masterpieces, using motives from every possible field closely related to life interests, such desirable skill as the pupil is capable of may be developed. Whether this be great or small, it should have the opportunity to make the most of itself. Thru this development, much will be of value in cultivating appreciation, also.

Thruout the foregoing there have been emphasized two distinct elements in art education which are supported everywhere in art by those things which have endured: First, that fitness to its purpose is an essential factor in determining the character of design and the choice of motives, either in industrial or fine art. Second, that spontaneous art expresses itself in beautifying and symbolizing the most immediate and vital life interests. Again and again in the study of the great periods this is forced upon us. Out of the fulness of the heart of his time and his people, both the artisan and the artist speaketh. I offer, then, that from both the teachings of the history of art and the inherent nature of the child, every subject of art study in the school is properly motivated only thru some interest dominant in the life or environment of the pupil.

A last point which I would emphasize is the necessity for the full use of spontaneity, originality, and constructive imagination. Our own unused American environment is the source of possibilities for a high development of appreciation and skill. We have natural scenery, and history, and folk lore, and social struggles, and social and religious aspirations and ideals that may find their highest expression only in bronze or marble or on canvas. We have unused possibilities for decorative design—oak leaves, acorns, corn, the golden rod, red clover—all as intrinsically worthy, and perhaps as symbolically significant, to us, as laurel or lotus or acanthus.

To me, the whole history of art and the most vital element in the pedagogy of the twentieth century, alike teach that all progress in art lies in the expression of the experiences, the hopes, the ideals, and the aspirations of our own environments, of our own times, and of our own lives. The past is studied to refine and stimulate creative effort for the expression of the life of the present, not to become a substitute for it. Both likewise teach that the fundamental principles of both industrial art and fine art are the same. The cathedral and the book cover, the memorial arch and the kitchen stove, the palace wall and the laborer's pick, the queen's tapestries and the servant girl's rug, may respectively and appropriately be decorated with the same design, show the same elements of line, spacing, color, or representation. Nothing is too common to involve principles of the highest artistic significance, nothing too fine to respond to the simplest elements of artistic expression. The appreciation and enjoyment of artistic materials used in daily work are not less a portion of the full joy of living than are the appreciation and enjoyment of the materials used in life's leisure. The large deduction I make from the whole matter is, that art is one, and that the means of realizing its highest appreciation and expression is thru the great variety and richness of life interests nearest at hand.

THE PLACE OF ART IN A CONSTRUCTIVE EDUCATION

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Either of the terms employed in the subject offers problems which would divide any company into apparently opposing but really co-operating camps. To attempt definitions of art and constructive education would be futile but it may be well to bring forward some illustrations which have more or less bearing upon one or the other of the terms.

In Germany, not long since, I visited a *Realschule* in one of the largest and most progressive cities. I had observed shops in which boys were at work on the other side of the court as I came in and asked the director if these belonged to the school. His reply was a very curt negative. Later I asked him to show me the laboratories of the school. Then he could restrain himself no longer. "In Germany, sir, workshops and laboratories are only for the education of those persons who in after life will not be able to escape manual labor." This may serve as an illustration of non-constructive education. It is only fair to say that there is much to be seen in Germany which belies the statement of the *Herr Direktor.*

In Italy—it was in Florence—I visited a technical school in which I was especially interested to observe the work of young boys of what would correspond to our seventh and eighth grades and first years of high school. There were well-equipped shops, laboratories and studios, each apparently ready for use at any time with assistants in charge who knew the problems of the material and processes involved. I tried to get at the program—the head of one of the departments who had me in charge and who spoke excellent English seemed puzzled by my questions. Finally he said, "The boy must, of course, do a certain amount of recitation work but the greater part of his time is spent on problems which may require this shop or laboratory or a studio—one cannot tell for how long a time. These are ready for his use and professors and assistants give him the direction and facilities needed. How can we then say that he must be in a certain laboratory so many hours a week?" "Do you carry this out with boys of twelve and thirteen?" I asked. "Why not?" was his answer. We may well echo his conclusive question, "Why not?" This I give as a situation which has some of the essential elements of constructive education.

The issue between the old education and the new is older than history. It has its counterpart in the struggle between rationalism and empiricism, monism and pluralism, humanism and naturalism, orthodoxy and liberalism. While progress has seemed to come through the forwarding of first one tendency and then the other, a really constructive policy must take account of both forces and one might as well be a partisan for the centripetal as opposed to the centrifugal as to take sides, except in a corrective way, in many of the pedagogical squabbles of the past and the present. European education overvalues products—the classic—and, what is more serious, fears participation in processes. One does not wonder that these embodiments of significance are looked upon as the chief material of education and encroachments upon them are resented when one recalls the scenes he has witnessed in American laboratories, shops, and classrooms in which students are kept so busy doing things that there is no time or energy for them to see the relation or meaning of what they are doing.

The opposing camps show greater division as one comes to know them better. At one extreme is the classicist to whom education is an introduction to products as embodiments of meaning. Next to him comes the school of Matthew Arnold, which would include along with the products as such a consideration of them as the results of processes. This is very different from a third class whose main desire is that the student participate in the processes. The second and third are often confused and a recognition of the two phases would prevent much wasteful controversy. The third class may be subdivided into one including those who would make the processes copies of those which already have taken place (the culture-epoch influence is much older and of wider range than the school to which the name is applied) and another which includes those who in an extreme form see only present activity in its immediate manifestations.

This last class is apt to assume that it is the true representative of constructive education but, as I stated above, I cannot believe that an intelligent view of the situation can allow our taking a partisan or sectarian relation. To illustrate what I mean let me describe in part what I saw recently in one of our leading American normal schools. The class chanced to be working upon bookbinding—one of a half-dozen arts used as educational experience—the abstract term "art" has given way to "the arts" in this school. Conditions were not easy for the class divided into three sections requiring very different treatment. It was the method of working which seemed significant to me. Both the art and the manual-training teachers were present and they evidently understood each other. Each was kept busy with problems—the strength of the work lay in the fact that each student evidently had problems of her own and the experts with their resources were regarded by the students from the standpoint of these problems. In the part of the period given to direct presentation I was struck by the way in which the instructors made use of the essential problems of material and construction and to these brought in as contributory elements materials representing the various classes spoken of—there was the finely finished work of the great masters in the trade and there were more simply finished products together with others unfinished showing the various stages of the processes involved. The hours seemed to me prophetic of a future constructive education in which there will be division of labor but in which partisanship will have as little place as it has today in the more highly organized developments of science. Custom and habit will have their part but consciousness and initiative and common-sense will function to a much greater extent than they do today.

I have chosen this particular case because it indicated a high-water mark in my observation. The type of material concerned and the progress made is important from the standpoint of the place of art in a constructive education. But the same bringing of both the worlds of science and of art into one system is equally valuable in other subject-matters. I would take a teacher of English, French, or even mathematics or Greek to this work for suggestion. It has often been noted how the conservative tendency which closed in on the fresh bloom of humanism in Latin and Greek in the days of the Renaissance and overgrew them with the barnacles of scholasticism until they have become to the unthinking the symbols of classicism, in our own days has made biology, physics, chemistry, even manual training, in some schools cemeteries in which are interred the hopes and awakenings of many of our boys and girls. Formalism in a subject which has had centuries of use is relieved somewhat by technical excellence—the art elements in a narrow sense, but in such a subject as domestic science, in which we have not yet gotten many habits of teaching, formalism has a bareness which makes one shudder to see its execution even in the most elaborately equipped quarters. In passing let me say to all believers in constructive education, regardlesss of their particular fields, that one of the most suggestive developments is that which is taking place in the subject of mathematics in England. The problem is to break away from the isolation into which any particular movement or function has come and to bring the results of the isolation—the force generated by the damming of the waters—into service. In this case mathematics has been developing its grammar and technics until we have almost forgotten that it is the language of science. The new movement in England and some beginnings in America are showing us that certain sections of so-called higher mathematics have a constructive value which should come early and be followed rather than preceded by the formal work we have considered the substance of elementary mathematics.

It is in this way that art has become segregated—the so-called fine arts have had the advantage in that the particular materials with which they are concerned have permitted the attainment of a freedom impossible as yet in the elements offering greater resistance and more difficulties. When this freedom has been attained it is accounted as a special prerogative of those who have it and not something which is to be worked out all along the line. The dualism which appears between the "fine" and the "useful" arts is the same that the old Greeks saw in mankind, there must be slaves in order that the glorious flower of leisure may blossom in a few.

In a course given in the early 90's Professor Dewey makes the test of the limit of free action at a given time, that is the degree to which anything is art, the extent to which it functions in the whole—the whole is seeking to embody itself in every particular—this whole is nothing less than the organized action of man. So far as the whole moves freely thru any part, that part is aesthetic. The democratic movement in the political, social, industrial regions has equal bearings in art. The precious achievements of any age have been hoarded as the right of those who have them and only with reluctance and under the force of pressure that could not be resisted have the barbarians, whether people or materials, been admitted to franchise privileges. In a very valuable article of last year on "Humanism and Naturalism," Professor Woodbridge shows the state of the various interests of man at the time of the rise of naturalism. It found, he says, "an art, beautiful beyond compare but secured and made possible in its monumental expression at the cost of unmerited and unrequited human suffering."[1]

The factor in modern education which stands out most conspicuously is that of control—of responsibility. In many directions are seen evidence of

[1] *Hibbert Journal,* October, 1907.

this. The various efforts at training the individual—at working out from a central initiative—are indicative that the elements of life are still forming new and higher relationships. Such recent books as Swift's *The Mind in the Making* and Scott's *Social Education* furnish much material for the progressive student.

When one turns to that phase of constructive education which is indicated by the term art, the problems of the larger situation repeat themselves. This is evident in one of the most important discussions of the subject which has appeared in recent years.[1] In this the distinction between the two aspects science and art is based upon the distinction between continuity and isolation. The discussion is very helpful but one feels that the general movement is toward dualism and the question arises of the means of getting from one world over into the other. It is as if the break in the chain of suggestions which compels adjustment and a redirection of response involving consciousness should be isolated as for that matter many logicians do isolate it. The particular case of art is so apart that the unity in which the scientific and aesthetic would each function is lost sight of and there is an over-emphasis upon the minor unity of the special instance—"the frivolous flirt" who is to be pictured as coquettish even to the ornaments on the wall may illustrate art of a certain type but we may be feeling after forms which while less specialized within themselves are still art altho they may lead beyond themselves. The particular experience may well require a pause in order that there may be an accumulation of appreciation which will by the force it thus gains give greater satisfaction, but this is only part of the story. The temporary isolation has its function and thru it there is experience which the unimpeded flow of suggestion could not give; but to take it as a thing apart because its distinctive value comes from its apartness makes for a dead aesthetic as the isolation of the proposition, significant as the product of a temporary holding-up and resorting of resources to bridge a gap—to meet a need, makes for a dead logic. In each case the isolation gives added value to an experience whose fuller significance is found in a larger situation.

The same problem arises in the statement of the psychological considerations. There is an anthropomorphic cast over it all which is a valuable asset; but as religion gains by transcending the notion of a deity who reflects man in bodily and mental characteristics, so art may profit by a larger range. One cannot but raise the question of the opportunity for change and progress in appreciation in a system in which an isolated impression stays in itself and draws into its circle only associations which make for "perfect isolation." If this is once attained how will it be gotten away from? The conclusion of this line of discussion well illustrates the results of this segregation and absolutism, activity becomes but a means and the real end is the old Aristotelian leisure—an aesthetic Nirvana or New Jerusalem of "complete satisfaction," "complete harmonization," "complete fulfillment." There is unity and there is diversity—leisure and activity, but why make one an end to the other? Life has place for both—they follow each other and enrich each other, but the end is in neither by itself.

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[1] Münsterberg, *Principles of Art Education.*

The important fact is the function in the larger whole of the isolation or damming up whether of thought or emotion. It is this that makes possible studying, considering, evaluating, appreciating. To arouse interest and to fall back upon experience when one possesses it are much easier problems in education than is the bringing about of the lingering over the object of momentary interest with the artist's eye and touch in order to get at the meaning it can convey to the observer. That is study in a real sense and with it comes readiness to see anew the experience that has proved useful and to see in it more and more meaning that may dispossess some cherished past impressions. As one lies at quarantine near New York, in the early morning there is a succession of visions—Whistler, Pennell, and even Turner effects. Everyone on deck seems impressed but there are few who seem to be able to keep a scene in mind long enough to get more than a snap shot. The current of suggestion is uncontrolled and they are borne on to something else which quickly yields in turn to another suggestion.

It is these two phases, individual and social, which I wish to dwell upon. In the individual's experience there is that participation in the abiding, that staying-by, going over and over, which with the right emotional tone is joy and without it drudgery—some phases of it in school work are called drill. There is nothing in this inconsistent with change and progress. It is the lack of attention to it that has laid the so-called new education open to the charge or impermanence and superficiality. In no consideration of moral or religious education can this factor in character-making be disregarded.

On the social side wider ranges are attaining their freedom. Athene Ergane, the guardian of art and invention, must reach far beyond the Acropolis in the rapid extension of her territory. She finds that the machine and other industrial developments which seemed for a time antagonistic to her world are means of widening her realm. Public-school drawing seemed far from art but the insistent patient work on the part of leaders and workers with vision has led to results which conservative artists give time to consider. One most encouraging tendency is seen in the increasing participation of art experts in public-school interests. In one of our middle-sized cities at the end of a year's work in which some time was given to bringing other community forces into relation to the school, within a week three artists of standing in painting, architecture, and music came to me and offered to give their spare time for a year to school interests in their lines. In connection with some of our private schools men of the first rank stand ready to give unstintedly of their time to the teaching specialists thus enriching the work of these institutions. As it has been said that the multiplication of distinctive social settlements is of ess importance than the increase of the number of homes which endeavor to meet near-at-hand social needs, so this outreaching of artists into service other than their immediate special production makes for better art in their production and for an extension of the democracy of art. A few days ago I was walking along a country road in an eastern state and was so attracted by the signs of two shops—the Bayfield Shop and the Boundbrook Press—that I stopped in each only to learn that a man of national importance in art matters felt it worth his while to spend part of his time helping his neighbors in the designing of furniture, mile posts, church and other building signs and even in the more artistic printing of local notices, the church weekly paper, etc. In one of our large schools a visitor after careful study remarked,

> Nothing impressed me more than the way in which an artist of recognized ability has so made himself useful that without any assertion of authority on his part all turn to him for direction—the tinting of walls, the selection of pictures, the designing of furniture, manual-training projects, weaving designs, costumes, the coloring of Easter eggs. The harmony resulting from this coöperation and the utilization of the expert is an important educational factor.

The goddess will find that fields which have seemed to slip away from her dominion are coming again to her protection—the drama has an increasing art significance. The children's theater is bringing art into many barren lives. There are risks and dangers and no doubt mistakes, but the trend is right. One of our poets after a careful study of the nickel theater has written a poem in which he shows the resources of art there which we have been slow to recognize. Such pageants as have been given this year in the Boston and Brooklyn normal schools open up to all who took part in and observed them wide reaches of experience. The revival of the festival while marked by some unnecessary limitations points the way to a study of local conditions and a development of characteristic art-communications which can bring joy into many lives.

A large part of this has to do with that side of life in which man is a consumer; one must accept his responsibility as a producer as well. It is here that the individual elements referred to show us a serious weakness in our schools. We have wisely sought for scope—range—wide interest for our students but we have neglected the equally important requirement of intensity—depth. We provide very little opportunity for enough time on one line to permit the worker to reach anything like proficiency. We encourage him to skip from one point to another and there is no chance for the concentration—the storing-up and repetition which makes him in a small way an artist. Benson in one of his essays calls for a reorganization of the secondary curriculum with some definite focus of major interest. The Washington Irving High School in New York City after the first year arranges a girl's work so that she can give as much as fifteen hours of work a week to the graphic arts or to whatever her major may be. In some of the English boarding-schools a similar result is reached by emphasis upon hobbies. We need more experimentation in these directions—even in the elementary school I am convinced that there is a need at the same time of greater variety and more concentration.

In the classification given above with reference to products and processes I purposely neglected to discuss another division of the third class—the one which desires participation by the student in processes—into those who incline toward the classical and so insist that the value of the processes lies—to put it in extreme form—in its uselessness, its unproductiveness; while the other party measures the value of the process by its results either social, material, commercial—some form of remuneration being considered essential. This brings us to constructive education in relation to vocation. This is a much larger question than industrial training for it includes that and much more. It is closely related to the question of major studies suggested above and has a definite bearing upon artistic production. There is not time to discuss this problem here but in the present tendency to see certain sections of the educational situation very large it is well to bear in mind the outward swing of these sections and to relate the teachings of the various subjects, the agitation for industrial training, etc., to the larger social situation in which there is due regard for activity and leisure, continuity and isolation, science and art, logic and aesthetics.

A NEW BASIS OF ART EDUCATION

EMMA M. CHURCH, FORMER DIRECTOR, ACADEMY OF FINE ARTS,
CHICAGO, ILL.

It is a significant fact that year after year this earnest body of educators assembles, not to congratulate itself upon the perfection of our present educational scheme, but rather to discuss ways and means of its betterment.

There is a universal dissatisfaction with the hollowness of present-day life, with its insincerities, its injustices, and its selfishness, and we feel that at least a part of its cause lies in the inadequacy of the old education and its remedy in the new.

The ideal of the age has been and still is material wealth. It is to have, rather than to be. It is to keep up an appearance, not to live. We have attained what we sought, and lo, we find that it is at the expense of the deeper life of the spirit, at the expense of the real good and the real happiness. This madness of possession has tended to make us feel our individual separatenesss rather than our social dependence and has denied us a full realization of the fact that no man can exist unto himself alone, that he can only know his life's completeness when he has seen in the human brotherhood his greater self and finally the relationship of the individual and social self to the Absolute, the Oversoul, or God, or whatever we choose to call the Great Ultimate.

The world has long had this ideal. All of its great teachers have proclaimed it. Did not Plato declare it when he said,

> He who would proceed aright should begin in youth to study beautiful forms; out of these he should create fair thoughts and soon he will perceive that the beauty of one form is akin to the beauty of another and he will soon become a lover of all beautiful

forms. In the next stage he will see the beauty of institutions and laws, and after laws and institutions he will go on to the sciences and, contemplating the vast sea of beauty, he will create many fair and noble thoughts until he grows and waxes strong and at last the vision is revealed to him of beauty absolute, simple, and everlasting. And what if a man has eyes to see true, Divine beauty? Do you not see that in communion, since he has hold not of an image but a reality, he will be enabled to become the friend of God and be immortal?

We might quote Buddha, Confucius, and many others.

It was the whole burden of Jesus' teachings to get men away from the world of their senses and to realize that the permanent thing and the only thing that is worth while is man humanized thru being spiritualized. To get them to understand that it is to know and obey the spirit of the law rather than its letter, "Seek ye first the kingdom of God and all these things shall be added unto you," and "The Kingdom of Heaven is within you," and "Love God with all thy mind, with all thy soul, with all thy strength, and thy neighbor as thyself."

Twenty-five hundred years ago, Plato formulated what he thought should govern the education of this ideal Republic and five hundred years later, Jesus taught very nearly the same thing for the upbuilding of his spiritual kingdom, and today we are very far from a realization of these ideals in life.

The world keeps repeating these words to itself and continues to be blinded by the dazzling glitter of material gold and the glare of the limelight of fame. Our only life and only reality we perceive in the external, the tangible. Religion is defined by creeds, and the churches teach, not so much about the all-pervading spirit, as they do about their peculiar way of conceiving and worshipping it. The question is not whether one is seeking the higher life but rather how is he doing it? If his way is not my way, he is a heathen; always the worship of the means.

The means of expression and not the essence expressed is also that by which we measure the worth of all forms of art. We say that music is beautiful sound, but it takes only our dog in the presence of the loveliest music that was ever produced to prove to us that the beauty must be native in the hearer, a quality of his consciousness. We speak of a beautiful building, canvas, or marble, and seldom realize that the beauty is within us and that the thing is merely vibrating to our inner consciousness the glow of sublimity that its creator felt. Things are merely a medium of communication between mind and mind and between spirit and spirit. There are a few masterpieces in the world's art that are so surcharged with the thought and feeling of the artist, that are so little material in their appeal, that the thing is lost in a sense of a spiritual presence. Such an one is the marvelous Praxiteles' Hermes, in the presence of whose sublime dignity there is seldom a beholder who is so irreverent as to speak aloud.

The fact that we still respond to these great things with a spirit akin to that which created them is proof that we still possess the "divine fire," but our too practical training, our persistent feeling that the only reality is material, and our much cultivated intellects compel it to lie dormant. And how hopelessly dormant it is in most humanity at present may be seen in the way people spend their time of play and relaxation, by comparing the patronage, in our great cities, of opera, good music, good plays, and the art-galleries with that of the profitless, unlovely amusement-parks and the second- and lower-class theaters. What is true of my own city is proportionately true of all other large ones. We have at least twenty of the second- and lower-class theatres, not to mention the dime museums and some others, that play to full houses every night and two afternoons a week, against one organization that is consecrated to good music and not more than ten weeks of opera and three or four theaters that at least part of the season present the artistic drama. There are only about thirteen out of every one hundred of the entire population that once a year visit the Art Institute which is one of the largest museums in the country and has brought to our very door the best of the art of these as well as of other times.

One of our amusement parks, of which we are the proud possessor of no less than five, which have desecrated the beauties of nature with atrocities that appeal to the morbid, nervous desire for hilarious recreation, had, in one day, twice as many paid admissions as our art-gallery had in one whole year. Is there not something the matter with the art-education that does no better for the education of the taste of the masses than this? If art and uplifting ideals have any excuse for being, they are the birthright of all humanity. Our method is the intellectual one of teaching about art and what others have done too much to the exclusion of anything in the way of an expression of personal feeling.

We might take a lesson in educational method from the mother who said to her little girl, "Close your eyes, dear, and tell me what you see;" obeying the child replied, "I don't see anything now but I hear the stars sing." "What are they singing?" And there followed a few strains of weird music, unlike anything the mother had ever heard. Its expression was as unstudied as its inspiration. It was the type of all great art. It is this music of the inner temple that the world loves and makes immortal. One who can hear the stars sing, can feel the majesty and sublimity of life in the roar of the storm and the murmuring of the pines, the gladness of life in the golden sunshine and the woodland song of birds, will find "Waltz me around again, Willie," at least, trivial. And he who has hold of this greater and nobler good will know that the bottom hasn't dropped out of all eternity just because Wall Street has had a spasm, or because the beef, ice, and coal trusts and the Standard Oil Co. have expressed their aspirations in a lifting-up of prices.

The danger-note has been sounded by many. Away back somewhere about 1850, when public education was being discussed in England, no less a mind than that of Herbert Spencer proclaimed that where intellectualization exceeds moralization, education is dangerous. Many years later, in a book called

The Curse of Education, Harold Gorst declared that humanity is rapidly becoming less a product of natural development and more and more a product of an organized educational plan and that the ordinary educated man has little individuality but is a mechanical result stamped with the mark of his manufacturer. It certainly seems that we have lived to see that things have worked out the way of both these criticisms, and for the remedy of these things that we have advanced many theories and tried many expedients.

We have seen, too, that all too frequently our children, instead of developing into law-abiding citizens, patriotic statesmen, and soldiers, use the education that the state has given them, to become corrupt politicians, the jugglers of corporation rights and otherwise to find illegal means of personal aggrandizement, if they can do it at not too great risk of being found out. To bring about a better sense of the duties and privileges of citizenship, many schools have instituted a system of self-government.

We meet frequently and compare the results of our work by exhibitions of how well the children sing, what designs and beautiful pictures they can make, what fine furniture they can construct, what excellent soup and cake they can accomplish, how well they can spell, what wonderful arithmetical feats they can perform, and what a fine percentage our whole school has made in its last examination; and fail to remember that our much more important results are not in things produced but in lives that have been helped to find and use, to the best good of the greatest number, every power that they possess and that our real results can only be seen when the children of today have taken from us the active responsibilities of men and women. Our real problem is not, then, how can we obtain better work but how can we raise to its highest power this inner alchemy whose self-impelled activity alone can dissolve facts into laws, and make them over into personal, usable gold? How aid this power to relate what has been gathered thru sense impressions into a consciousness of harmony, peace, and eternal good, and how aid the development of the sense of unity of this inner, personal kingdom with that of all humanity and with the absolute, universal spirit?

How can we awaken into a living flame that latent fire that William James tells us abides in all men, that needs for its awakening some great calamity, some soul-stirring occasion, or some great stress? When we behold a hero or a poet we say that he is inspired, he hears the inner voices, he communes with angels, or that "from the abundance of his heart his mouth speaketh."

Altho the subject of this paper is "A New Basis of Art Education," so far only education in general has been discussed for the reason that art, as a mere subject in the educational scheme, is of no more importance than any other and also because art education both in the public schools and the art schools has been taught from the standpoint of history and its relevant sciences, has been as externally taught as all other things have been.

It seems clear that the very basis and center, the pivot of the whole educational process, not only in the arts but in the sciences as well, from the first grade even to the universities, must shift from a point without, from external instruction of facts and narration of facts, to a point within the student's consciousness, which we may call his interest, self-activity, love, veneration, or sense of beauty, and which can be trained alone by a conscious effort on the part of the student to think and feel nobler and to make this better self communicable by progressively more beautiful expression in as varied forms as possible—in thought, conduct, work, and play.

The ennobling of the emotional nature seems to be the logical initial step in unfoldment of the moral self and it does not seem to argue any detriment to the development of the powers of reason or of any of the intellectual faculties, but rather puts them into their natural places as a means of education and not its end, and because art is the natural means of the emotional nature's expression, and by art let us understand all of them, and because the emotional self is the origin of conduct, it seems that the arts must be the first step in education that trains for a better sense of proportion and for better morals. In the training of the little children, we must forget that we are specialists, we must remember that it is not our business to turn out a race of cooks, carpenters, foundrymen, designers, picture-painters, arithmetical geniuses, or what-not, but rather to know that our specialties are only the different languages thru which the inner self speaks and to be ready to help the child to the best use of our special art when he has something to say that can best be said in its particular terms.

As consciousness evolves itself from the experience of the senses our first steps in education should be training of the perception. When the children have grown far enough to realize themselves as apart *from* and yet *of* the social body, we might let them take the matter of the regulation of conduct into their hands. They will easily evolve such types as the family, clan, tribe, and in the upper grades with a little help they will glory in a village or municipal government. Again, the being confronted with the necessity of some organized regulation of conduct and finding its remedy themselves will give a respect for law and order that mere compulsion can never engender.

As to the work and industry of our school community we will but need to turn to the history of the race for the natural order of development of the forms of expression, and we find the arts to have first place and those always first that call for motor expression such as games, dances, ceremonials, song, pottery, weaving, and construction of various things of use, to which has always been added some design of religious or other signification. In the creation of these various things much thought is needed and the ingenious teacher, instead of teaching reading, writing, arithmetic, and history as unrelated subjects, can create a necessity for their use and to her joy will it be found that there is no difficulty in teaching children anything they want to know when they have use for their knowledge. We might eliminate grammar and spelling and use words and language well and step by step refine their use. All correlations should take place in the children's consciousness instead of our trying to correlate subjects.

As the children grow older and become better able to think abstractedly and to be interested in so doing we may digress into a more purely reasoning sphere.

The history of art and its relevant sciences, such as anatomy, perspective, science of color, etc., as well as all history and all science except as much as is tangent to various things the children are evolving, should be left in the educational scheme until the children have reached a period in their mind's development that is parallel with the time that these phases of thought had their birth in the race.

Science in all its phases consists of abstract deduction made from concrete experience. Hence the educational order in the science, too, should be personal experience, personal deduction therefrom and expression of these deductions. It certainly seems much like putting the cart before the horse to hand out to students ready-made deductions and hope that they will engender the experience.

Our elementary educational period then should be one of the widest possible generalization that each child may be given a chance to find out in what direction lies his greatest natural ability. Secondary education should allow for various phases of specialized work for those who cannot go to college, hence do not need college-preparatory work.

When art shall have come into its own and when we can forget how practical, scientific, and commercially successful we are, long enough to see beauty that is not measured by what it cost or by whether all the best people have placed their sanction upon it, when we shall remember that it is Homer whose name has come down to us and not that of a captain of industry of his time, that Praxiteles and Phidias will continue to influence the world for all time, and that the sweet spirit of the Japanese painter, who signed his paintings with a little seal that reads "The cherry blossoms and plum blossoms are silent yet are pathways worn to the places where they grow," will charm long after the death of many less aesthetic things, we shall see a system of institutions of higher learning devoted to the arts that shall take their places beside the present universities and have not only some financial support from the state but also have the recognition of the state so that it shall be a part of its educational scheme. The state will have as great an interest in the training of the artists who write our songs and poems, and make our public statues as it now has in the training of those who teach the languages and sciences.

Now, the art school is usually attached to a museum of art, and a few are individual enterprises. As yet there are none I believe in this country that are under state supervision and none that are qualified to give degrees.

These art schools should be planned in accordance with the best principles of educational philosophy. They should be universities of aesthetics, whose first care is to develop the sense of beauty by much and varied expression, next to help the student in the selection of the particular profession to which his natural abilities adapt him, and then to give him the necessary technical training that will make it possible for him to go directly into practical work.

Such a university should include departments of literature, drama, music, architecture, sculpture, painting, designing, illustration, commercial art, the various handcrafts, and a normal-art course. And all of these subjects should be approached from the standpoint of the personal sense of beauty and not that of art history and its relevant sciences—the latter subjects to have consideration last and not first. Does it not seem strange that while art is most immortal of all man's creative thought, that it has the very least place in our education? Does art not also, since in spirit and essence it is the same as religion, seem to be education's chance to teach the universal religion that may appeal to the followers of all creeds and offend none?

DEPARTMENT OF MUSIC EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—Frances E. Clark, supervisor of music, Public Schools, Milwaukee, Wis.
Vice-President—George E. Krinbill, supervisor of music, Public Schools, Bisbee, Ariz.
Secretary—Edward B. Birge, supervisor of music, Public Schools, Indianapolis, Ind.

FIRST SESSION.—Tuesday Afternoon, June 30, 1908

The meeting was called to order in the Old Stone Church, at 2:30 p. m., by the president, Frances Elliot Clark, Milwaukee, Wis. Wilson G. Smith, Cleveland, Ohio, made the welcoming address. Mrs. Clark gave the president's annual address, speaking on "Our National Music."

Vocal selections were then rendered by the third-grade pupils of the Waring School; Miss Sweeney, teacher.

A paper entitled "Schools from the Viewpoint of a Superintendent" was read by William McKendree Vance, superintendent of schools, Delaware, Ohio.

Several selections were then rendered by the Girls' Glee Club of the Central High School, directed by Mrs. Marie Burt Parr.

A paper followed on "High School-Music" by Osbourne McConathy, supervisor of music, Chelsea, Mass.

A paper entitled "Psychology of Music and the Light It Throws on Musical Education" was given by G. Stanley Hall, president of Clark University, Worcester, Mass.

SECOND SESSION.—Wednesday Morning, July 1

The department met at 9:30 a.m. in round-table session for discussion of the topic: "What Should Be Expected from a Normal School in the Preparation of a Grade Teacher for Teaching Music?"

Vocal music was furnished by the fifth-grade pupils of the Rockwell School; Miss Morey, teacher.

Papers on the topic were read by Charles Fullerton, State Normal School, Cedar Falls, Ia., Julia E. Crane, director of music, State Normal School, Potsdam, N. Y., David R. Gebhart, State Normal School, Kirksville, Mo., Miss Clyde E. Foster, State Normal College, Ypsilanti, Mich.

Music was furnished by the Boys' Auxiliary Choir, under the direction of Mr. Jones.

The following committee was appointed to draft a resolution upon the Uniformity of National Songs: Powell G. Fithian, Camden, N. J., A. J. Gantvoort, Cincinnati, Ohio, and Elsie Shawe, St. Paul, Minn.

The meeting adjourned until Thursday morning.

ADJOURNED SESSION.—Thursday Morning, July 2

A round-table discussion upon the topic, "Practical Methods to Improve Our Sight Reading," was opened by Mrs. Harriet D. Parsons, Cleveland, Ohio, and Charles A. Fullerton, State Normal School, Cedar Falls, Ia.

Charles I. Rice, supervisor of music, Worcester, Mass., read the report of the Committee on Terminology Reform.

The Committee on Resolutions Regarding Uniformity of National Songs reported as follows:

Inasmuch as there are several songs of a patriotic character that are commonly sung in all American schools, and inasmuch as there is no uniform setting of words and music to some of these songs; be it

Resolved, That a committee of three be appointed by the president of this department:

First, to make a collection of songs suitable for use upon patriotic occasions; second, to revise the music and words of these songs with a view to uniformity and singableness.

Resolved, That this committee have full power to act and that the committee serve without compensation.

Resolved, That the findings of this committee be submitted to the Commissioner of Education at Washington, with a request that the Bureau of Education publish the edition presented by the committee and take such action as to insure the use of no other edition by all United States Government bands.

Resolved, That the publishers of school books and others who publish these songs are hereby requested to use in future only the authorized edition of these songs.

POWELL G. FITHIAN, *Chairman*

The resolutions were adopted and the following committee was appointed:

A. J. Gantvoort, musical director, College of Music, Cincinnati, Ohio.
Elsie Shawe, supervisor of music, Public Schools, St. Paul, Minn.
Osbourne McConathy, supervisor of music, Public Schools, Chelsea, Mass.

THIRD SESSION.—THURSDAY AFTERNOON, JULY 2

Gustave W. Ronfort of Cleveland, Ohio, played the organ Sonata in D by Guilmant.

The first-grade pupils of the Broadway School furnished music under the direction of Miss McNamara.

Alys E. Bently, supervisor of music, Washington, D. C., read a paper upon "Children Voices and Children Songs."

Vocal music was furnished by the Normal School Glee Club.

Mrs. Alice C. D. Riley, Evanston, read a paper upon "Child Verse in Song;" and

Mrs. Jessie L. Gaynor, St. Joseph, Mo., on "Music in Child Song."

A paper was read by Anna Goedhart, supervisor of music, East Cleveland, Ohio, upon "Educational Rhythm Training," illustrated by pupils of different grades.

It was voted that the Committee on Securing Affiliation of the National Music Supervisors' Conference with the Department of Music of the National Education Association be discharged.

It was voted that the Committee on Terminology Reform be continued until next year, and that each member of the Music Department take a copy of the questions referred to in the report, and offer such changes and emendations as he might wish.

The Nominating Committee reported the following nominations:

For *President*—Frances E. Clark, Milwaukee, Wisconsin.
For *Vice-President*—Charles I. Rice, Worcester, Massachusetts.
For *Secretary*—Philip C. Hayden, Keokuk, Iowa.

It was voted to instruct the secretary to cast a ballot for these nominees. The nominees were then declared elected and the department adjourned.

EDWARD B. BIRGE, *Secretary*

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

OUR NATIONAL MUSIC

MRS. FRANCES ELLIOTT CLARK, PRESIDENT OF THE DEPARTMENT

Music in the public schools is advancing very rapidly in every way. There has seemed to be a lull in the interest felt for music on the part of school people since manual training has occupied the foreground and so much time and effort and discussion have been given over to this newest phase of modern education. However, music has gone steadily along, and wonderful progress is shown in many lines: in the number of schools where it is being regularly taught; in the class of material used; in the effectiveness and thoroness of the teaching being done everywhere; in the advanced scholarship and better preparation of the supervisors; in the number of schools, conservatories, and universities offering courses in school music; in the increased number and enlarged scope of summer schools devoted to school music; in the number of educational journals maintaining departments of music; in the richness and variety of helpful books published on ear-training, child-song, child-voice, harmony, and melody writing; and most of all, in the awakening interest of supervisors themselves as evidenced in increased attendance at the great summer schools; in increased activity in undertaking difficult things; in organizations of music sections in most of the state educational associations; special organizations in different sections of the country, and by this splendid gathering of supervisors from many states in a great national meeting.

We should not forget in this connection our sister organization, the Music Teachers' National Association, which, thru its school-music section, is also doing much to interest the professional musicians.

There is felt everywhere in our country an awakening in musical activity of every form. More concerts, recitals, and oratorios have been given this year than ever before, furnishing remunerative engagements for an ever-increasing army of talented singers and virtuosi. New York has two grand operas where once it had but one—Philadelphia, Pittsburg, and Chicago are soon to have permanent or extended seasons of opera. Boston, Cincinnati, Chicago, and Pittsburg have their great orchestras. Italian opera flourishes in a half-dozen cities and opera in English may be heard in as many more. May festivals rise and flourish in many cities and college towns, crowned by the great parent movement in Cincinnati. More artists from abroad visited our shores this season than ever before. All of this goes to prove that Americans are waking up musically, learning to demand, enjoy, and produce the best.

We have been called unmusical, unappreciative, and are told that we have no art, no atmosphere, and no culture. Possibly the stigma was in some measure deserved a decade ago, but the slander is being refuted every day and we point with pride to our splendid teachers, our great schools, our great artists, our multitude of younger musician workers, artists in embryo, and more than all, to the mighty work that is being done for music in America through the public schools.

If America is ever to become what I firmly believe she will become, the greatest singing nation in the world, it must come primarily from the teaching of singing to the millions of the masses in her public schools.

Here in our own United States we have every condition to produce not only great singers, but communities of singers—a nation of singers. We have that priceless heritage from our forefathers, freedom, which has in all history set the hearts of men rejoicing, and naturally finding expression in song. We have infinite variety of scene, climate, atmosphere, valley, mountain and plain, metropolis and wilderness, the red schoolhouse on the hill, and the world-famed university. Here we have a great cosmopolitan civilization, made up of the best blood from every nation on the globe—children of oppression, many of them—here blossoming into the fulness of liberty of the American citizen.

The spirit of our pioneer ancestors bequeaths to us an infinite greatness and grandeur of character, found in thousands of the sturdy common people, who still represent the real American life in spite of the dollar-mad few. We have here the life-saving sense of humor, the power to relax, the lightsome spirit of fun, good clean wholesome fun, oftenest finding vent in some sort of song.

Here then is our material, the children of this staunch yeomanry ready to our hand; ours the task to educate them.

Most of us have been too well satisfied with the day of small things in achievement in choral work, not realizing the tremendous possibilities of the child-voice in mass chorus, and the educational uplift to the child in the study of better things than we have thought possible to the immature mind and voice of the child in the grammar grades.

Then too, here is the place *par excellence* for the teaching of patriotism. More than we know, the singing of the stirring songs of pride in "Old Glory" stirs the hearts of the children at the impassionable period of growth, and builds down deep into the inmost springs of life the spirit of "If need be, we will die for the land we love the best."

There must be a reawakening in all lines of school music, an impetus given to the study of high-grade songs by our own composers, meaningful, musical settings of poems by our own native writers, poems redolent of our own American life and thought, our own American swing and spirit, true to our highest ideals of American manhood and womanhood. We must also be alive to the necessity of introducing the classic composer to the children of the grammar grades while we have them under the regular instruction of the class teachers, before many of them drift out into the workshops and factories, closing forever the doors of musical advancement. There should be given at least once each year a program of classic compositions, of biographies read, of artist friends invited to come in and sing and play for the children from the composers chosen. The Welsh people have demonstrated what interest can be aroused by choral societies to stimulate national singing. Why should not we have inter-city or inter-state or inter-district contests between eighth grades to arouse greater interest in choral work? In a great meeting like this, such a contest was found to be impracticable, but in the state and district Associations, what could be more inspiring than such an exhibition? This year we hope to have such a contest between our schools in Milwaukee, to increase interest in singing, and to give parents an opportunity to hear what is being done.

Thru the public schools the state and federal governments have a means of reaching out a hand toward building a real national music. So diversified are our tastes, our tendencies, our environments that no one can say that this or that phase of American music is typical. Is it the harmonized Indian chants or dances, or the plantation melodies? Is it the rhyme of the miner's or the woodman's camp or is it the latest craze of operatic extravaganza of the city theater, or the hymn of the revival or Salvation Army, or the stately oratorios of the university, or choral society? All these types are a part, but only a part, of the nation's music. In the public schools only is there being made a judicious mixture of the best of these, and a foundation being laid for a national type of song—singing built on a basis of pure nature song; the songs of home and the joys of childhood; the folk songs of other lands; the stirring songs by American composers, of the thoughts found in the lines of American poets; and the great choral works in opera and oratorio of the old masters.

To educate the whole people to such an understanding and appreciation of the world's literature of choral song is our inestimable privilege and plain duty. To do this presupposes and necessitates, first of all, that from the beginning there must be songs, and so thoro a course of reading music in the intermediate and grammar grades as to make possible the study of such music, coupled with such careful conservation and training of the child-voice as to make the singing safe, pleasing, and an addition to the art and beauty of the world.

Unfortunately, there has been no recognition of school music on the part of the United States government. It is impossible to obtain a list of cities where music is taught; impossible to obtain a list of supervisors; quite impossible to come by any tabulation of courses of study and gradation; still more impossible to find an authorized version of our national songs. They are printed in every possible variety, in every pamphlet and booklet for advertising. Bands and orchestras play them in serene contempt of the proper phrasing, putting in or taking out holds and rests *ad libitum*.

This haphazard printing and rendition of our national songs should be improved. It is quite time that this section, the recognized national head of school music, move in the matter of finding a remedy. A strong effort is being made to lift the office of commissioner of education to a cabinet position. It should be done and when done there should be established a bureau devoted, at least in part, to national music.

Do we need to wait for this development? Can we not take such action as will lead to having the work done by the present organization? There should be gathered all available statistics in regard to music teaching in the United States, both public and private; where taught, in what cities, in what grades, whether under supervision or not, how many supervisors or assistants, at what salary, whether in high school or not, what examinations and what credits given, what high schools give credits toward graduation, what high schools give credit for outside work in music carried by the pupil, what colleges and universities offer courses in music as a regular branch of study, what credits given as entrance requirements, what credit on regular courses for the work in music, what normal schools have music as a regular part of the work in the preparation of teachers, how many weeks given, what states have music as a requirement, what percentage of county institutes offer music as a regular study? All these and many other items would be of wonderful interest to every one of us and of great value in arranging our courses of study and plans for work.

This same commission or bureau should, in consultation with musicians who are authorities in choral work, issue an authoritative version of all our best national songs, so that we may have some uniformity in their rendition, and some means of insisting that bands, at least when accompanying singing, should play them correctly. Can there not be appointed at this meeting a committee to draft resolutions embodying these needs, which, upon the approval of this Department of Music Education shall be presented to the commissioner of education, asking that immediate and definite action be taken?

With the record of what has been done behind us, and the goal before us of setting a great, free people singing, singing, ever singing, let us move on.

MUSIC IN THE SCHOOLS FROM THE VIEWPOINT OF THE SUPERINTENDENT

WILLIAM MCKENDREE VANCE, SUPERINTENDENT OF PUBLIC SCHOOLS
DELAWARE, OHIO

I shall have two words to say on this subject: a brief one concerning the value of music in our schools, and a longer one concerning the music teacher and the results which every superintendent would like to observe in his school as the result of the music teacher's work.

The spiritual and cultural values of music have been set forth for all time by the great singers of all ages from David to Luther, Shakespeare, and Goethe. Music and religion, music and poetry, music and religion and poetry, are examples of the chemism of art, worship, and sentiment as truly beneficent to man's spiritual nature as is the union, in varying proportions, of carbon, hydrogen, and oxygen, the chief elements of organic life, to his physical being.

The educational value of music is now almost universally conceded, and it would be a pleasure to record that the work begun by Lowell Mason on his return from Europe in 1840, in behalf of public-school music, had been fully established. But the fact is that there are not a few small cities, hundreds of villages, and thousands of rural schools in which the teaching of music cannot be found.

I feel a certain trepidation in speaking in this presence of the qualifications of those who are charged with the duty of teaching this noble art to the children of America.

First, the music teacher must understand music in no superficial way. So much attention has recently been given to methods and the theory of teaching that there is danger of forgetting the supreme importance of scholarship and culture. Quackery in the music teaching of our schools is yet in evidence in not a few communities of wealth and culture. Sometimes the teacher is a sweet girl graduate with a high C, or a young man whose ability to sing low E is his sole claim to distinction. Sometimes virtuosity on the piano, the violin, or the cornet, has elected its possessor to the office of training youthful voices, alas! too frequently with harmful results. Sometimes a local chorister with plenty of enthusiasm and a voice truly Cyclopean is engaged "because he leads the Sunday school so well." Sometimes a lady of social position, whose husband has been unfortunate, is elected to the position of music teacher because she has a remnant of a voice—the remains of a musical education—and because she has nothing else to do.

It will be a good day for school music when the standards by which to judge of good sound progress are well understood and defined. The average superintendent, the average board of education, and the average board of examiners, are quite incompetent to form a correct judgment concerning the qualifications of the music teacher or the quality of his instruction. We cannot trust to the vagaries of any reputed musical person of the community. Ordinarily the local special certificate to teach music is simply a legal fiction. This great and growing body of public-school music teachers and supervisors should be certified as other specialists are certified; namely, by the experts of their own calling or profession.

Our public-school music master must possess the quality of enthusiasm and the ability to present his subject in such an attractive and masterful way that the pupils insensibly respond with their best efforts to his slightest wish and direction. This means the ability not only to create but also to sustain an interest in music in all grades of the public school. The primary grades, where the most important work is to be done, fortunately, are the easiest fields for cultivation. Children, and particularly little children, love to sing, and he is a poor teacher indeed who cannot interest them. But in the upper grammar grades and in the lower classes of the high school is a field for the music teacher to demonstrate what manner of man he is. Here will be put to the test his patience and perseverance, strategy and finesse, mastery of the school and mastery of himself.

And this leads me to say that our music teacher must be a disciplinarian; not of necessity *the* disciplinarian of the room—the regular teacher ought to be that—but he ought to be such a master of the art of teaching that he would usually control a difficult situation in any grade of work without appeal to the teacher, principal, or superintendent. Of course he should not be expected never to have any trouble, but the superintendent has the right to suspect the fitness of any special teacher who, notwithstanding the unfaltering support of the regular teacher, wearies him with frequent complaints of inattention, disorder, or insubordination. Sometimes the superintendent prays for his music teacher the old Scotch elder's prayer for the new minister: "The Lord gie him health, the Lord gie him grace, and the Lord gie him gude sense—nay, Lord, if he has nae common sense already, it's nae use o' your tryin'. Naebody can gie him common sense."

Our music teacher must have a keen insight into the mysteries of the child heart, a thorough knowledge of the child nature. He must understand the feelings and impulses and motives which govern children, and he must be able to enter with loving sympathy into their mental states and experiences. St. Paul clearly voiced the universal law of growth when he said, "When I was a child, I spake as a child, I understood as a child, I thought as a child; but when I became a man I put away childish things." But there is a sense in which it is not only eminently right and proper—it is absolutely essential—that the instructor of youth should not put away childish things. The cheery smile, the buoyant spirit, the sunny nature of children should be to us a better means of keeping our own lives young than any fabled fountain of perpetual youth.

I have already hinted that the music teacher should be a person of genuine taste in the practice of his art. Facility in reading is not the only, nor even the chief, desideratum. That is the development of musical intelligence and feeling—the ability to appreciate an artistic interpretation of a genuinely musical composition. Even though only small ability be developed in the art of singing, yet an appreciation and enjoyment of music may usually be secured.

Finally, the music teacher must know something of the anatomy of the vocal organs, and must thoroughly understand the nature and care of the human voice.

> How wonderful is the human voice! It is indeed the organ of the human soul! The intellect of man sits enthroned visibly upon his forehead and in his eyes; and the heart of man is written upon his countenance. But the soul reveals itself in the voice only, as God revealed himself to the prophet of old in "the still small voice," and in a voice from the burning bush.

Thus wrote Longfellow in prose as beautiful as his poetry. The marvel is that this "organ of the soul" should be so commonly undeveloped, or absolutely abused, as to yield but rarely a degree of beauty and power. A good singing voice helps the speaking voice. The singing master may be a potent agent in correcting the slovenly enunciation, nasal twang, and high pitch of our national speech—a speech that is as susceptible of mellifluous utterance as any language living or dead, not even excepting the "liquid accents of the Attic tongue." Henry Clay's voice was compared to a band of music; Webster's, to a trumpet; and Channing's, to a harp. When a man once complained to the latter of the severity of Christ's denunciation of the Pharisees, Channing read the passage to which reference was made in such calm, solemn, and sympathetic tones that the critic exclaimed, "Well, if Christ spoke in that way, my objection is withdrawn."

Children's voices are often abused in the schools. Teachers, and Sunday-school choristers, with more zeal than knowledge, like to have enthusiastic singing. Their pupils are urged to greater and greater effort. Loud, hearty singing is what is wanted and striven for. Power is regarded of supreme importance, and the efforts of the teacher are directed toward securing volume of sound. The sensitive, quick, and willing ones respond strongly and heartily. "That's good!" says the teacher, "sing out!" Loud, coarse, vulgar shouting is understood to be music, and passes for the correct thing among many most estimable, but really quite uncultured people. Now it is this coarse shouting that is fatal both to good music and to the vocal organs. Irreparable mischief is done in this way, and it is among the best and most willing children that the harm is done. They are urged to "sing out," and the very effort put forth prevents them from taking easily and sweetly the higher notes of the songs. Hence, they sing out of tune. The lower register of the voice is forced up beyond the natural limits, and, like the straining of a violin *A*-string to do duty as an *E*-string, which makes it useless ever after as an *A*, so such voices sustain a permanent injury in range and sweetness of tone. Such teachers and choristers should adopt as a motto, "*Vox et praeterea nihil*"—voice and nothing besides.

The period of mutation of boys' voices demands extreme caution on the part of the teacher, and renders the careful treatment of their voices a duty amounting to a sacred obligation. Boys whose voices are changing should be excused from singing, and girls whose voices are of a contralto or mezzo quality should be restrained in their desire commonly to sing the highest part. In Jenny Lind's younger days, it is related that she applied to Garcia, the great teacher of vocal music in Paris. He heard her sing, and then told her that her voice was gone, and that she must not sing a note for a year. He asked her to return to him at the end of that time, and, in the meantime, to improve her health. She faithfully complied with these directions, and came back to Garcia at the appointed time. Rest at a critical period had restored her voice, greatly to her own delight and to the gratification of her master, who testifies that early misuse came near depriving the world of the Swedish nightingale of song ere her marvelous voice was heard.

I shall not undertake to discuss the methods, or processes, or plans of the music teacher's work. Questions, for example, relating to the Fixed Do, the Movable Do, and the Tonic-Sol-Fa systems; to the type forms in public-school musical instruction; to the extent to which the theory of music shall be introduced into the primary grades, and others of like character, are beyond my province, and, perhaps, beyond my ability. I shall leave to others to say whether every pupil shall be taught music; whether tone deafness can be cured, and whether the voices of such can be hypnotized, Trilby-like, into beauty of song. My own notion is that of Goethe who declared that "anyone can and ought to learn music who can distinguish between a flute and a cowbell."

Certainly we are all agreed that this beautiful art, which comes into our lives with a thousand delightful ministries, should be put on a sound educational basis, and intrusted for purposes of direction and development only to teachers who understandingly and lovingly appreciate its subleties and its beauty, its spirit and its power.

MUSIC IN THE HIGH SCHOOL

OSBOURNE MCCONATHY, SUPERVISOR OF MUSIC, CHELSEA, MASS.

The honor of addressing this body on the subject of high-school music has been extended to me because, in the city of Chelsea, Massachusetts, where I serve as supervisor of music in the public schools, the subject of music has been given a prominence in the high-school curriculum that, so far as I am aware, has not been given elsewhere. But in many places the value of music in popular education is being recognized as never before; high schools all over the country are introducing or are planning to introduce the study of music in one or more of its phases as special elective work, in addition to the almost universal practice of high-school chorus drill. Believing that it is the wish of those who have invited me to speak, I shall devote the time allowed me to describing frankly the plan of special music courses now in operation in the Chelsea High School, trusting that you will accept this statement as my reason and excuse for the personal element in my paper.

In Chelsea we are trying to answer the question, What opportunities should the high school of today offer its students in the way of a musical education? We do not claim to have solved the many problems suggested by this question, but I offer for your consideration an outline of the results of our study of these problems, an outline embodying methods which our convictions warrant us putting to the test of experience.

Music in the Chelsea High School may be classified under three divisions: the general course required of all students, the special courses, elective, and extra opportunities in the way of glee clubs, for which pupils compete. The general course requires of all students attendance at a one-hour music period each week. In addition pupils of the freshman class may be required to take one hour additional study of sight singing. The pupils of the senior, junior, and sophomore classes form the advanced class or chorus, and the first-year pupils form the freshman chorus.

It would give me pleasure to discuss certain phases of this general work in music in the high school, questions with which we are all vitally concerned. But, as these questions relate to matters which are not peculiar to Chelsea, I shall confine myself to the proper purpose of the paper—a presentation of the special music courses, elective, as outlined in the course of study in the Chelsea High School. These courses are four in number: Course A, Musical Appreciation; Course B, Theoretical Music; Course C, Applied Music; and Course D, Orchestral Ensemble. The special music courses are credited on the same basis as the other high-school subjects, and the marks count for promotion and graduation just as the other marks are counted. In electing special music the pupil is at liberty to drop other subjects, the choice of subjects dropped being subject to the advice and consent of the principal of the high school. In one sense music may be considered a favored subject, as students are admitted to the music courses from any of the other regular school courses.

The course in musical appreciation, Course A, is a cultural course, which does not require ability to perform. Beginning in the sophomore year, one period a week for three years is given to listening to music with incidental study of musical forms, musical history, biography, and other musical topics with which the intelligent music lover should be acquainted. The constant requirement of the course is that the student shall listen to music. The instructor is an accomplished pianist, and the students are provided with a pianola, rolls, and music for laboratory work.

In the first year of this course the students listen to a number of compositions, the instructor directing their attention to those qualities which may be described under the general heading "musical forms." The character of work done is indicated by the test at the close of the year, which includes such questions, as "What is meant by the words contrapuntal, folksong, symphony, etc.?" The instructor plays several characteristic selections which are unknown to the students, who are required to name the form of each—minuet, gavotte, waltz. The teacher plays portions of compositions which have been studied during the year, and the students are required to name them, and, perhaps, to describe some of their distinguishing characteristics.

In the second year of the course the junior students listen to compositions which illustrate the historic development of music. Reference is here made to the composers only to explain their service in the evolution of art, biographical details being reserved for the following year. In the senior year, besides musical biography, the students have a short course in the physics of music under the instructor of sciences, a course in listening to the various orchestral instruments, and a course in contemporaneous musical matters. Throughout the three years of the course the students are referred to leading articles in the music magazines, the most important of which are to be found in our public library. Books on musical subjects are recommended and sometimes reviewed in the classroom. The works to be performed at local concerts are explained and the pupils urged to attend as many concerts as they can. The course aims to improve the quality of our concert audiences, and we hope that our students may swell the number of those who listen to good music with intelligent discrimination.

The course in theoretical music occupies two periods a week for four years. Beginning with a review of the elements of music notation, the course undertakes to develop the students' musical perception along the lines of chord construction and connection into the realm of the harmonization of melodies. The course is technical, but analytical rather than constructive. As our scientific course makes no attempt to turn out finished scientists, but proposes to establish scientific habits of thought so that later the student may make the most of his opportunities in technical schools; in like manner the course in theoretical music does not aim to give a finished education in harmony or counterpoint; it aims to train the student in those correct habits of musical thought which must be the basis of any higher musical training. If we can teach our students to think in tone and to express themselves fluently and, as far as we go, grammatically, we will have accomplished as much as, in my opinion, a high school should attempt.

Course C is called applied music. Students in this course are given credit in the high school for work done under private teachers in singing or playing on the piano, organ, or any orchestral instrument. The school takes the attitude that the serious study of these subjects is as much a part of the students' education as the study of the subjects taught in the high school. Indeed with no small number of pupils it has a more direct influence on their future lives than most of their other studies.

The practical difficulties in the way of crediting outside study of vocal and instrumental music under private teachers are met in this way: The student, on applying for admission to the course, must present a written recommendation from his music teacher and a written request from his parents, stating that they agree to the conditions of the course. From that time to the end of the year the private teacher is considered practically a member of the high-school faculty, and his bimonthly marks are placed on the students' report cards just as are the marks of the teachers of English or Latin or the other high-school subjects. At the time of sending these marks to the school the private teacher is required to send a report covering the following points: (1) the number of lessons taken since the last report; (2) the average number of hours' practice a week; (3) technical progress made by pupil since preceding report; (4) list of compositions studied by the pupil with remarks concerning the scope and quality of the work done on each composition. As the high school cannot undertake to decide which private teachers are good and which are not sufficiently good to be accepted on the same basis as the faculty of the school, the following plan is designed to keep the standard of marking up to an equality with the marking in other subjects. The school committee elects an examiner who tests the students of Course C at the close of the school year. The tests are based on the bimonthly reports of the private teacher, the student being required to sing or play selections which the reports indicate as having been learned to the satisfaction of the teacher. The examiner decides whether or not a satisfactory standard of work has been required of the student by the private teacher. The examiner's mark is accepted as the student's average for the year. By this plan the private teacher is left free to pursue his own methods and, at the same time, is held to a proper standard in marking his pupils. Students are accepted in Course C at whatever degree of proficiency they may have attained, and are only required to show satisfactory progress during the year. An important point to which I especially wish to call your attention is that all students accepted in Course C are required to take the courses in musical appreciation and theoretical music. While the high school recognizes the dignity and necessity of technical proficiency on the student's chosen instrument, and considers the study of his instrument an essential part of the student's education, it insists on a recognition of the intellectual and aesthetic elements in music as essential and without which manual dexterity is not worthy of credit in an educational institution.

Although deeply interested in high-school orchestras I do not believe that the purpose of this paper will be furthered by discussing at length the details of Course D, orchestral ensemble. I have therefore merely mentioned it, as one of our credited elective courses.

Our reason for introducing these special courses may be briefly stated as threefold. First, they give an opportunity for young men and women with special fondness or taste for music, and for those whose social position makes it desirable to cultivate an intelligent appreciation of good music, to study the subject in a broader and more comprehensive manner than would otherwise be possible except at a sacrifice of time and effort which many would not feel it practicable to make. Or expressed in another way, the courses are designed to improve the quality and the number of our discriminating concert goers. Second, they give an opportunity to young people who are preparing for a musical career to carry on their musical studies while securing the general high-school advantages. Third, by giving to our future musicians a broader education, by adding to the number of cultivated and discriminating concert goers, by requiring a definite and high standard of work from private music teachers, and by showing to the general public the view held by educational authorities that music is a subject worthy of serious study, ranking fairly with other subjects in the high-school course, the special courses aim to bring about a more intelligent attitude toward music, to improve the standards of teachers and performers, and to aid in developing a national love and appreciation of good music.

Permit me to quote a few words from the report of the Music Conference, held in Boston in 1904, which bear directly on the second of the three reasons just given and somewhat on the third. The report says:

> Some of the disadvantages, not to say evils, of the present neglect of music in public education are well understood. Among them we cite a frequent example.
>
> A youth reaches the high-school age, desiring to study music with a serious purpose, which desire is approved by parents and teachers. He is met by these school conditions:
>
> *First*, He must add music to his high-school course as an out-of-school study and thus run the peril of overcrowding, a condition which occasions much parental complaint, and may result in permanent injury to the pupil; or,
>
> *Second*, He must drop music, which, in the deliberate opinion of his advisers, may be to him one of the most valuable studies of the high-school period; or,
>
> *Third*, He must leave the high school, for the present school system neither teaches, credits, nor favors the serious study of music. As affirmed by an experienced high-

school principal, most pupils of decided musical talent, who continue the study of music, drop out of the high school, and thus lose the advantage of the liberal courses of study there furnished.

These conditions affect the college and higher education as well as the lower schools, and work detriment in various ways. They make it difficult for parents to carry forward the musical education of their children and at the same time to secure the general high-school advantages. They curtail the opportunity of the musical element of society for literary and general training. They lessen the efficiency of the teachers and interpreters of music. Thus, in a word, they detract from the value of an important social agency. The exclusion of music from the body of instruction is believed also to impair literary technique in prose and verse, and to procure a needless separation of music and literature to the detriment of both arts.

The Chelsea High School plans to meet these conditions. Just as we offer a commercial course for those planning a business career, a classical course for the future college student, or a scientific course for those whose plans require it, we provide also a music course for our future musicians. We hope that as far as our influence goes there may be some advance in the educational standards among the musicians of our community.

THE PSYCHOLOGY OF MUSIC AND THE LIGHT IT THROWS UPON MUSICAL EDUCATION

G. STANLEY HALL, PRESIDENT OF CLARK UNIVERSITY, WORCESTER, MASS.

Thought and reason and their vehicle, speech, are all three of them novelties in the natural development history of the soul. In the dim past psychic life was very different from what it is now—feeling, instinct, and impulse were all, and they were common to the whole race, while intellect not only came late but was largely an individual product, causing people to differ from each other and to stand out from the species. It is of this older, larger, deeper, and more generic soul of man that music is the best and truest of all expressions, especially if with singing we consider gesture, mimesis, and dramatic action which arose with it. Music is the speech of this antique, half-buried, racial soul. It did not evolve from love-calls or charms alone, as Darwin thought; nor did it first appear as a tone-colored accompaniment to speech, as Spencer's broader theology taught, for it is older than language, as Weissmann, Boaz, and Gaultmann have shown; while capacity for musical culture is latent in many primitive races. Birds, which evolved long before man appeared on the earth, practiced this art, and so did animals and even insects, the very first of all creatures to emerge from the primeval sea. Indeed, if we stretch the term to its very uttermost and make music include all acoustic expressions, the wind, rain, thunder, sea, are the oldest of all musicians, for trees and brooks came later after the land appeared.

If we abandon ourselves to the very madness of mysticism, we may say that vibrations and impacts are as old as matter, heat, light, or even atoms and electrons. Probably all energy is rhythmic and cadenced, so that in this sense the music of the spheres which Plato thought the sweetest and most symphonic of all, even though we cannot hear it, is no longer myth but science. To all these influences protoplasm, which is the sugared-off, vital product of all the cosmic elements and processes, responded from the first for it is the material soul of the all. This pristine rapport was closer and more all-sided before a special sense was developed for it. Thus, though man has lost many of the old and subtler responses and perhaps has shed a whole series of ascending rudimentary organs after them, the human ear is the result of a longer development process, which has made it the highest, and is the most specialized organ of response to vibrations. But the influence of all these buried reactions still whispers among man's central neurons; and in his appreciations of pure music, reverberations are still awakened of the immemorial past when his personality was not yet so sphered out of the specialized in the cosmic one and all. Thus in music, man may today dimly revive the most ancient elements and experiences in the history of his soul. If heredity is cell memory, the aesthetic response to music is the awakening of echoes far older than the earliest acoustic organs; and in this process, man remembers the earliest as well as also the subsequent stages of his evolution. It is the art of arts because most prehumanistic and also most prophetic of the superman that is to be.

It is this aspect of this sovereign art that justified, if anything can do so, the enthusiastic characterizations of it by writers like Marlo Pilo[1] that it utters the essence of things, best explains the world, is the chief interpreter of religion, that it propounds and answers the ultimate problems of life, or gives at least a mystic meaning to Schopenhauer's phrases that it is the last word of the highest philosophy, that it is the revealer of ultimate metaphysical being of the will and soul. Only from some such viewpoint can we see light in the utterances of German aestheticians who say that music expresses all the cosmic emotions, utters every potential as well as every actual feeling, that its kingdom is not of this present but also of the future world, and that it should be because it strikes its roots deepest into the past and most securely shapes the future so that its home is in the infinite, that it shows everything under the form of eternity, that it utters all longings, even the dimmest, puts us into rapport with stars, sea, and dreams, draws the ideal down from its fatherland in heaven, if, indeed, it be not the very essence of God himself.

But our problem today of the pedagogy and psychology of music is a practical one and can go back but a very little way toward such putative origins. Among children and savages, music has several distinct beginnings.

1. Rhythm is the first which is so emphasized in all the primitive music, which seems to have a tum tum origin. Its chief features are repetitions and cadences. It is a system of beats, accents, stresses, time keepings, and markings, stepping, patting, tapping, striking, measuring arsis and thesis with the feet. At first there is little content and little variety, but repetition exasperatingly monotonous to cultured nerves. A savage band is made up of drums,

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[1] *Psychologie der Musik*, Leipzig, 1906; 226 pages. Trans. by C. D. Pflaum.

at first untuned, and if there is a choir, it repeats phrases and words endlessly. The child which begins by rhythmically striking one object with another or by keeping tab of sequent impressions on tallies in a series of light objects when getting ready to count, hums or verbalizes a measure over and over, perhaps slowly evolving and intricating it, or learns to beat time, march, sway, or gesture, has begun to ascend the long way by which the race began its musical development. This stage needs great and early emphasis; although, on the other hand, it may become excessive and neurotic as is seen in the counters and beaters. Poetry is older than prose and everything possible in the kindergarten and primary grades should take rhythmic character. A cardinal trait of music at this stage, therefore, should be marchy, dancy, motor, for it must get into the muscles. While the child may hear other music, it should attend chiefly to this kind. To exercise together without music is the ghastly mistake of Swedish gymnastics, which sins against both motor and musical development. Music should go with steps and steps with music. The young person who cannot dance is crippled in his appreciation of a certain large class of music. There are those who interpret almost all kinds of music in terms of motion, supplementing real by imaginary movements. The sentence, sense of power, all periodicity and style in speech, grace, ease, and freedom, which are the poetry of movement, find here their chief source. To sit still and listen to stirring music stunts a musical development in a young child in its very bud, for it feels music chiefly as incitement to action. There have been great and precocious musical geniuses that have shot up through this stage so rapidly that it was little seen, but it is integral in normal, musical development, and the born teacher of the art best knows how to draw upon and utilize this immense reservoir of motor tendency.

2. The child best worth educating musically responds deeply and early, even if unconsciously, to the sounds in Nature, the first music master of the race. The soughing of the wind through the pines stands out uniquely in its effect upon the sensible soul of childhood. It may even cause tears without consciousness, for it plays upon the very organism. It is felt in most as sadness and restlessness, while the susurrus of the breezes among the leaves of deciduous trees is early pleasing and exhilarating. The wind is a bandmaster, loved or feared according to the loudness with which his orchestra plays. The rattle of the hail, the drip and patter of rain, the silent fall of snow, the roll of distant and the crash of near thunder, the ripple of streamlets, the roar of waterfalls, the beating of waves, and all the many voices of water are great music teachers. Then too there are the symphonies of bees, crickets, and even mosquitoes, the humming, droning, booming buzz of larger insects, the piping of tree toads and frogs, even the cries of the feles et canes, each has a varied tone language of its own to the young; the bleating of sheep, the lowing of herds which give pastoral moods, the call of the wild, and the cry of the squirrel kind; above all, the birds: the lonely hoot of the owl, the despairing hoot of the loon, the caw of crow and daw, the scream of the eagle

and hawk, the clapper of the heron, the cooing of the doves, and all above the song of the warblers which one observer says never sing but only laugh out of a heart overflowing with joy; each one of these sounds and many more carries with it a whole stage-setting of psychic moods; and these the tone-poet simply must feel abundantly, often, and early. Living creatures do not talk to each other for they have no vocabulary of words, but their utterances are all of them either love-calls, warnings, or danger signals, and are more musical than verbal. Some are lullabies, others madrigals, or philippics, or notes of defiance, or murmurs of parents to their young, and some are voices of the day, others of the night or storm. They suggest the heath, the prairie, moorland, thicket, mountain, meadow, brook, the spring when the migrators come, and the fall when they go. These are the things that have played on the soul thru all the immemorial past, have controlled its moods, and have still a strange power to call up imagery. Snatches of these varied antiphones are, as many careful experiments show, what music suggests to all responsive souls. It is these influences that should not be evicted by the music-stultifying noises of the city, which cause it to focus on errotic, even decadently errotic, themes. So far as music is an interpreter of nature, the child must have heard, felt, varied influences, or else musical training leaves him untouched, because there is nothing in his soul to interpret.

3. Song is story, and to the child is the nourishing root of all musical culture. A musician who never sang or at least hummed to himself or herself can never possibly feel the full power of instrumentation. He must at least hear song in his throat or something vital is lacking. Song, too, must have a burden, and programless music comes later. The bard is inspired by his theme and pours forth unpremeditated song, because he is drunk with his theme, and therefore carries his hearers away. So the great lyrists from the restored Apollo to the gypsy fiddler of today in his own habitat play music that to them is rammed full of meaning and content deeper than words and with which they weave their spell. Hence too the musician must know the great tales of great times and men and be inspired by them, so that he can learn to let himself go with abandon; and his powers of sympathy must be utterly untainted by criticism. Story roots of love stronger than death, of vengeance where man is a powerless agent of the Fates, of piety and devotion that immolate self for something greater than self—among these the composer finds his Muse. Hence the pupil must know and feel the great mythoperic cycles, especially those of the ancient Greeks, Homer and the dramatists and the Germans, the Saxon Arthoriad, the Niebelungen, and the rest. All such legendary and heroic love cannot be properly told save in poetry and music to which they incline and inspire the soul. Thus literature of this class should be the handmaiden of art. Above all, biblical literature and the religious instinct should be cultivated. So too patriotism and the flag and the great historic events and golden deeds of virtue, home, native land, country, and religion are the great themes in all the consensus of children's preferences

in music. Love comes later, and comedy and parody are still later and far less.

4. As to instrumentation, wind instruments that are blown come nearest the heart. The pipe was first after the drum, and to play it is singing with a proxy larynx, while breath and feeling are ordinarily very closely akin. Thus even the young, even near the age of self-consciousness and emotional repressions, can still express a sentiment naturally; and school bands are as hygienic for the feelings as they are for the lungs, and from Plato down all have praised material strains of this kind for youth. But in soulfulness, we must agree with Gardiner[1] that the violin stands first, hard and late as it arose. Each string has its distinct character. It requires and trains great accuracy of ear and touch, and bowing is the best expression of music which the hand can make. Perhaps in nothing does it come so near being the direct organ of the heart. How the Hungarian fiddler in his home and with native music hugs passionately, caresses his instrument and gets, as Paganini did, the most sympathetic and tumultuous response that ever instrumentalist won from a crowd! The violin is the school instrument in Germany where most is done in music. The ready-made notes and tempered scale of the piano and organ are farther off and their technique is far less expressive of the musical tones. The mandolin is a tasteful decoration or bric-à-brac for a sophomore's room, but is it quite virile for the American man? It affords our stalwart college barbarians in evening dress an opportunity to line up before the audience and strum accompaniments in three chords to the simple ditties carried by the more expert few. Is not even the banjo less lady-like and evirating? I do not know; why do not you musicians tell us? Alas, the pedagogy of music is yet in its diaper and swaddling-clothes stage, till we know more of the psychology of the chief classes of instruments, each of which does different things to the soul.

5. You music-teachers should now keep closest tab on this new movement for children's theaters which promise great things in the near future. Music and drama are twin sisters and have grown up together in the closest dependence one upon the other. Mimesis, gesture, acting, are probably, like music, older than speech itself. New studies show how most school children at some periods of their lives have a veritable passion for cheap shows, of which there are fifteen hundred of the nickel and dime order in New York alone. Their passion is to see and feel passion. They long to be thrilled, and their appetite for excitement is legitimate, for it must be had or the child is dwarfed; and we can do little but to determine whether it shall be on a high or low plane. In New York censors inspect plays and those they find clean are open to scores of thousands of young people at reduced rates, and supplement their school history and literature and give moral uplift, draw off bad instincts, on the principle of catharsis, and perform future choices aright. Good operettas come in and music now needs, and is just beginning to have pedagogic

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[1] *Nature of Music*, Boston, 1838; 505 pages.

censorship by similar boards, that have growing power to determine success or failure or good and bad things upon the stage in our large cities.

6. Keep the technique duly subordinated—pray ponder this: is it not just as absurd to teach children notes and the scale before they have learned a repertory of songs by note, as it would be to teach reading before the child learns to talk? The prime end of musical education in the grades is to train the sentiments, to make children feel nature, religion, country, home, duty, and all the rest, to guarantee sanity of the heart out of which are the issues of life. To this, technique and everything else should be subordinated. Again, you must sing to the children if you can only croon or intone poetry. I would have a pianola in every high school and college with a few scores of well-chosen selections. In pubescence when the life of sentiment awakens, probably music has its very most potent influence in stirring and expanding the soul. Much school music is now chosen merely with reference to some scheme of pedagogic, systematic progression. Much method here is a sin against the holy ghost of music itself. Every tune introduced should have a moral and aesthetic justification and should be admitted to the school canon only after careful deliberation and for good and sufficient reasons. And then and only then music will be rescued from its present abject subordination and given its rightful, commended place in the curriculum as the trainer of the feelings which are three-fourths of life.

7. And lastly, I wish music teachers would read a little more, and see their work in the larger light now dawning. They might at least know Pilo, Gardiner, Wallace,[1] Wallasehek,[2] possibly even Gurney,[3] not to add Darwin, Spencer, and Weissmann's dilettante and hypersubtle theorization. Then there is the second part of Helmholtz' masterpiece, *The Sensation of Tone*, which gives the history of music on a scientific basis. There are other works by Ritter, Paine, Henderson, Nerlich, Costlin, Bartholomew, Stumpf, who thinks that purity of music and race type go together, that the male voice was once very high, and that woman first began to sing, and that use of practicality has caused the development of music. Then there are the simpler results of the study of children's choices, from discriminations of pitch, from their range of ear, their sense of timbre, the imagery that music excites, which Gilman and Downey have studied, and even the responses of infants to music; while Dr. Theodate Smith is preparing a work on the psychic reactions to sound by infants and children, and fuller studies are being made upon mutation.

[1] *Threshold of Music*, London. 1903; 269 pages.

[2] *Primitive Music*. London. 1893; 326 pages.

[3] *The Power of Sound*, London, 1880; 559 pages.

CHILD-SONG—ITS VERSE

MRS. ALICE C. D. RILEY, EVANSTON, ILL.

The poet tells us that "Knowledge is power;" power over the objective world about us, power of self-control, power to make objective the inner world gained in that self-control. All of our education should give us one of two things—power to understand the thoughts of others or power to express our own.

Modern education has occupied itself much with the cultivation of the power of self-expression, and many branches have felt the stimulus of new methods developed from this viewpoint. It seems a little curious that music, drawing, modeling, and all the manual-training branches should have developed along creative lines, leaving verse still asleep in the bonds of the old conventions.

Whatever may be the value of classic methods of scansion for college students, it is self-evident that they are not available in first grade. It is also evident that, if we should develop creative work in verse, we should begin at an age when children have not outgrown their natural fondness for it, which alas! they are only too prone to do under present conditions. Therefore, with children, the analysis, which is always a necessary part of creative work, must be done after some other plan than that of classic scansion. Is there any other available means? Yes, that of musical scansion, one with which the children are already getting acquainted in first grade. When Lanier published his book on *The Science of English Verse*, he cleared away at one stroke all the thicket of trouble which had surrounded the analysis of English verse. He established it once for all on a musical basis.

Here we have a method to our hand! One perfectly fitted to its purpose and equipped with a symbol for every least variety in rhythm. A set of symbols, moreover, with which the child is daily becoming acquainted in his music lesson. By teaching these two arts, music and verse, hand in hand, the child will gain in comprehension of each and also in command over the form necessary for creative work in either study.

In all our knowledge, we find that we are more developed in our power to recognize and appreciate than in our power to perform. This is true from the lisping infant, who understands much that is said to him but can only utter a few words, to the musical critic at a symphony concert who can write columns of learned criticism about the performance of the symphony and who cannot, perhaps, play a single instrument nor yet write a simple musical composition.

The moment, however, that we begin to do creative work in any line we find that we must know the parts which go to make up the whole and their relation to each other. Thus a child may have recited verses and sung songs for years, and may be quite capable of recognizing and appreciating either verse or song, without one thought given consciously to form, to parts, to proportion, etc.; but let him try to create a verse or a song and he at once must learn something of form, and his knowledge must not be unconscious, as it has been during the period of appreciation, but conscious. He must know the parts and their relation to each other before he can use them in creative work.

What are the parts of verse over which he must gain control? Briefly, they are rhythm, rhyme, and other ornamentation. Of these the first is perhaps the most important, since all verse, whether rhymed or blank, has some measure of rhythm.

What is rhythm? "Rhythm is measured motion." In the motion, or vibration, which produces sound, this measuring is done by accent which falls recurrently with perfect precision. The same conditions prevail when this sound is used in forming words, as is illustrated by the following examples:

2/4 Pe-ter/Pe-ter/Pe-ter/Pe-ter//
3/3 An-na-bel/An-na-bel/An-na-bel/An-na-bel//

When words are combined in phrases and sentences and are so combined that the logical accents of the words and phrases fall as a regularly repeated accent, occurring at regular intervals of time, we have verse with rhythm.

2/4 A-/down the/vale and/up the/hill
The/laughing/maids run/silver/shod//

And when these lines are further bound together with some rhyme scheme into a stanza, we have some form of rhymed verse, as:

2/4 A-/down the/vale and/up the/hill
The/laugh-ing/maids run/silver/shod
Their/laughter/rippling/like the/rill
That/dan-ces/where the/dai-sies/nod.//

Here our rhyme scheme gives us the verse form known as the quatrain and our rhythm scheme may be either groups of two's or groups of four's according to our desire, said groups being weak-strong, weak-strong, etc., for the first and weak-strong-weak-weak, weak-strong-weak-weak, etc., for the second. Here we find exactly the same groups, and divisions of groups, as in music and in using musical notation for all purposes of rhythm analysis we shall find a symbol ready to hand for any possible rhythmic groups we may wish to use.

The following examples will illustrate some possibilities of musical scansion:

1. 2/4 There/was a/man in/our/town//
2. 3/4/Rock-a-bye/hush-a-bye/bees in the/clover//
3. 2/4/Four and twen-ty/black birds/baked in a/pie//
4. 2/4/Hark/hark the/dogs do/bark.
The/beg-gars are/going to/town//

In example one we have one word which demands two pulsations to satisfy our rhythmic sense. In example two, in three beat rhythm we have one syllable which demands two pulsations /clo - ver/. In example three we have the evenly divided beat and in example four we have the unevenly divided beat. The children are becoming familiar with these identical rhythmic quantities in their music lesson, and therefore such analysis is easily understood by them.

Of course the work is presented little by little, one step at a time, and in such a way that the work in the two branches deals at any given time with the same rhythmic problem.

In the matter of measuring silences, so important in many rhythmic schemes, the musical scansion gives the only satisfactory method. In the following example see how necessary the silences are to the rhythmic scheme and how perfectly the musical notation indicates them.

/Break/break/break/
On thy/cold gray/stone, O/sea!/
And I/would that my/tongue could/ut-ter/
The/thoughts that a-/rise in/me/ //

These examples will show some of the possibilities of musical scansion. Anyone who will take the trouble to scan any of the poets in this way will find more and more proof of its complete adaptability and practicability.

In presenting the work to the child it is necessary that the teacher should have as complete a mastery of her subject as in teaching any other branch. She should know exactly what results she is trying to accomplish and just what methods she may use to accomplish them.

There is no time within the limits of this paper to go far into the manner of presentation, but the teacher should always bear in mind the two main branches of the work: the critical and the creative.

Knowledge of form is gained in the critical work. Through musical analysis the rhythmic forms are brought to the child's conscious knowledge. The particular rhyme scheme in use is pointed out and its effect upon the verse appreciated. Other ornaments of verse such as alliteration, onomatope, music of line, etc., and their office and effect are brought to the child's attention. Careful work in this department will do much to give one command of material when attempting creative work.

In the creative work it is well to let form be self-selective, growing naturally out of the thing the child has to say. Once the form is sufficiently defined to decide its nature, the teacher should devote herself to the perfection of that form. No training in either verse-writing or in self-control is gained if the child be allowed to create at random without regard to form. He may create in any form he choose, or, more strictly speaking, in any form in which his thought clothes itself forth; but, once having defined a form, he should complete his work strictly within the bonds of that form and according to its rules.

The value of creative work in verse is many-sided. Its power to develop a sense of form is equal to that of creative work in painting or sculpture, albeit these appeal wholly to the sense of sight or touch, whereas verse and music cultivate an appreciation of form as it appeals to the sense of hearing. Inasmuch as the eye has been better trained than other organs of sense by most educational methods, it is especially valuable to cultivate those arts which appeal to the other senses. There is not only aesthetic but character training in a study which teaches us to express our own ideas through a form which has been perfected and polished by the masters of the past, and any system which would abandon the forms developed by centuries of patient evolution and force each child to develop spontaneously all his own forms, ought, in order to be consistent, to do the same in all other studies, writing, arithmetic, spelling, etc. By this plan each farmer should begin with the forked stick and develop his own implements, and each artisan his. It is easy to see that in this way we should get more original results but it is doubtful if the world would have made much advance by such methods.

Brander Mathews says that it is the privilege of each generation to stand upon the shoulders of its predecessor. From this viewpoint, we need not be afraid of teaching forms, since to the artist they are as truly the tools as are implements to the artisan.

As a method of developing good taste and appreciation in English, creative work is unequaled. Critics have always claimed that writing verse was one of the best methods of acquiring a good English style, since the need of choosing exactly the right word becomes greater within the limits of a narrow form. There is also a valuable training given the imagination in creative verse-work unsurpassed by any of the other arts, and no child who has done creative work in verse consistently through eight grades and high school will be ignorant nor unappreciative of the beauties of the masterpieces of poetry.

Nothing so increases our appreciation of great work in any field as working experience in that field. Here we approach the line which marks off mere verse from poetry. The great poet, like every other great artist, is born, not made. The divine fire is a gift of the gods which no educator pretends to be able to bestow. All we can do is to give the tools, the training, the technique; fate and the gods must do the rest.

But to have gained in self-control, in power to handle material (and above all such material as one's native tongue), in power of self-expression, in mastery over form, in power of imagination, and in appreciation of the masters, surely this is an end worthy of our efforts.

CHILD-SONG—ITS MUSIC

MRS. JESSIE L. GAYNOR, ST. JOSEPH, MO.

The study of music has long since ceased to be work for the specialist nly. People are beginning to wake up to the fact that not only will those who intend to become players, or singers, or composers, find profit in the study of music, but that as a factor in the general educational scheme, there is no subject which can serve better in mental development than the study of music. No other study teaches such exactness of hearing and such nice appreciation of comparative tonal values.

The steps in the development of the musical side of a child are very much the same as those which mark his general mental development. As he grows from within, desiring to express himself, the musical language may serve him in exactly the same way as his mother tongue. Music is a foreign language to many a child, since he may not learn it in his home, and from the lips of his parents. Given a child born into a musical family, where he hears constantly singing and instrumental music, he comes early into the realization of the fact that thought may be expressed in music, as well as in words. To such a child there comes an unconscious appreciation of tone and rhythm. On the other hand, a child who hears little or no music at home will be as deaf to its meaning, and as little appreciative of its beauty, as he would be of a story told to him in a foreign tone.

The one side of music which is most universally appreciated, and that because of its close relationship to its sister art of poetry, is rhythm. The appreciation of rhythm comes to a child with his earliest recollection, with babyhood, with his mother's lullaby, with his first Mother Goose rhymes, and with the games and jingles which make up so great a part of a child's life during his first four or five years. Teachers are apt to forget the great value of these childish games and plays, and to think that the study of music should begin with notation and scales, and the various dry symbols which to the teacher mean much, and to the wee pupil are merely a source of confusion.

Many children in this day and generation are growing up without their rock-a-bye songs, and without the Mother Goose rhymes, and many of them without the old games and old songs of their grandmothers, and the dear old fairy stories and the old-fashioned songs. Teachers of music find themselves confronted with a problem that is very serious—that of teaching an art which deals with the imagination, and with an appreciation of tone and rhythm, to children who have had absolutely no opportunity to develop even the first ideas of these elements. Educators sometimes forget that an appreciation of tone and rhythm may not be learned about by the intelligence, but must be experienced through the feelings. Music teachers are beginning to appreciate these difficulties, and all over the country methods and systems are being developed to do this beginning work, which should have begun in the nursery.

What the kindergarten has done for color and form, the musical kindergarten must do for tone and rhythm. To hear with accuracy, to conceive music-thought with exactness, and to express intelligently through notation—these are the things which the teacher expects to develop.

To perceive, to conceive, and to express music; about these three we must construct the whole system of music-education. The symbols of music should be presented as they are needed to express the musical idea. For instance, the bar will be presented when attention is first called to the difference between strong and weak impulses, whether in music or verse. As the note symbol varies in form according to the time-duration which it expresses, it is well to present first that note symbol which expresses one impulse. The most natural note to nse for this purpose is the quarter note. From the beginning, it becomes a simple matter to present two eighth notes joined by their flags as a symbol of two sounds to one pulsation, or the triplet as a symbol of three sounds to one pulsation. It is obviously impossible in a limited time to go into detail, but any teacher should be able to plan a simple scheme of developing symbols. These symbols should always be presented after the child has heard and understands the musical example, and not before.

The pitch relationships of melody are represented by the position of the note made absolutely exact by the lines and spaces of the staff, and these should only be presented after the child has a thorough understanding of the pitch relationship of the tones of the scale. No special value need be attached to the possession of absolute pitch by the child, but a sense of absolute pitch is often the result of careful training. However, an exactness of perception of the relative highness and lowness, and an appreciation of exact pitch relationships as based upon our modern scale may be taught to anyone with a normal sense of hearing. When this has been done, symbols representing these relationships should be given, and not before.

The same value attaches to creative work in music as in other branches of study. A child may learn more of musical symbols in writing out his own original compositions than in observing volumes of the writings of others.

EDUCATIONAL RHYTHM-TRAINING

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My subject today is "Educational Rhythm-Training." You may ask why educational? Is not all rhythm-training necessarily educational? Yes, but all that calls itself by that name is not always rhythm-training. In order to be worthy of the name, and therefore really educational, the work done must be truly rhythmic, that is, show forth and emphasize the character of rhythm; be methodical, that is, regularly progressive towards a definite end, and the results obtained must be commensurate to the time and energy spent in the attaining.

Thus I will deal briefly with these three points: 1. Rhythm—What is it? 2. Method in rhythm-training. 3. Result desired and obtained.

First, as to rhythm. Rhythm is the soul of music. The *Dictionary of Music and Musicians* gives: "Rhythm is the systematic grouping of notes with regard to duration; its subdivisions are accent and time." Lavignac in his *Musical Education* says:

> Rhythm is nothing more than division of time into equal or unequal, but always proportional fractions. Time is the absolute equality in duration of all notes of the same value. We can play in time while giving the rhythm in an incomplete manner; we cannot produce correct rhythm without playing in time.

This is perfectly true. However, he seems to me to leave out the most important thing, which is accent. The most comprehensive and clearest definition I have found in Adolph F. Christiani's *The Principles of Expression in Music.*

> Rhythm is the regulated recurring motion made clear in music by the periodical recurrence of accent. The best simile for rhythm is perhaps pulsation. If pulsation gives the fundamental idea of rhythm, the next idea would be that rhythm is method, for it brings order into every kind of movement.

He sums up as follows:

> Art has as its fundamental law, the law of beauty. Beauty presupposes symmetry. Symmetry is visible rhythm.

Rhythm is audible symmetry, or symmetrical motion. Symmetrical motion is the ground element in music. The metrical basis of a composition cannot be altered without destroying completely the character of the work.

Convinced of the absolute necessity of definite rhythm in order to produce good music, let us see what we should do to train the children to realize it. Some people ask, When should the musical education of children begin? My answer is, In the cradle. And it actually does, for the mother that rocks the baby, singing a little ditty, is beginning the musical education of the child. How she does it will determine whether the foundation be a good one or not. If she sits in a rocking chair and rocks one way and sings to another rhythm she will be actively destroying any sense of rhythm the child may have had to start with. Thus the mother may persistently be rocking the rhythm out of the child which the teacher will have to rock in again. So unless we can first educate all the mothers to rock in time, our rhythmic education has to commence in the kindergarten or in the first grade. In the first grade I first teach the feeling of the equality of the beat, after that the regularity of the recurring accident, then the grouping of long and short tones, from a note that lasts one beat to one that lasts two, three, four beats. This is prepared and supplemented by rhythm-games and motion-songs. In doing this with the children, care is taken that the movements of the children correspond to the accent of the music. There are many good motion-songs that I use, but, as the tone is likely to suffer through the motion of the body, I prefer to let the children do the motions while the teacher sings, or to divide the class, letting one-half do the singing and the other the motions.

Hand in hand with the ordinary schoolwork a great many devices can be used to emphasize rhythm outside the time especially devoted to music. For instance: groups or rows going to the blackboard in time to music played or sung; writing to music; erasing to music, taking special care that the down stroke is made on the accent. Anything done to music ought to be done to the rhythm, and this brings me to another point; namely: it should be done not only to the accent of the measure, but according to the phrasing as well. Often in physical culture exercises are given to music, but not planned with regard to the phrasing. The teachers say in their defense: "But I don't know anything about music, how can you expect me to know all these technical details?" How does a child know? Play the game called "Going to Jerusalem" and invariably the children will want to take a seat at the end of a sentence, because their ear expects a stop.

The other day at a garden party I saw a little girl do some quite wonderful dancing, but the effect was marred by the lack of correspondence between the movements and the music. She started every new group of movements in the middle of a phrase, and ended with her bow several measures before the end of the tune. Now, if dancing is to be educational the teacher should also see to this side of it, and so with any other exercise done to music. So far as to training the sense of rhythm.

The question now comes of training the children to reproduce rhythm—namely, to translate the symbols and to keep up the regularity of the accent through all sorts of varied combinations of long and short tones, by their own individual mental effort. If, during the singing of the children, the teacher has to beat vigorously on her desk, I do not call it the unaided effort of the children. If, to make the children hold the notes the required time, the teacher has to point to every note on the board, I do not call this unaided effort either. But I call it unaided effort when the children sing, without help from the teacher's voice, pointer, or ruler, independently, a melody presenting such rhythmic difficulties as are not above the standard of the grade.

We have all found that certain rhythms, hard to transport from the eye to the ear, are immediately cleared up by giving a certain word or sentence to illustrate the movement. A professor in despair how to get a little boy to play the following rhythm correctly, at last called out, "Don't you feel how it goes?" "Terrible, terrible, naughty boy," and then the boy could play it. As in ordinary reading the letters in their different groupings call to the reader's mind the words they represent, so in music the notes in their different groupings should call up distinctly and immediately the rhythm they stand for.

I recommend the use of the tonic sol- fa- time names. They are simple, logical, and fundamental, and have one name for each unit, and I have my pupils beat the time. The value of this practice is clearly shown by the fact that even a great many teachers find it hard to beat the time when the class sings. They swing their hand to the notes instead of indicating the beats. Tapping the time, as is advocated nowadays, is not half as effective as beating the time, because it does not illustrate accent as clearly as the old-fashioned beating with its strong downward stroke. In rhythm-training I thus appeal first to the ear, then to the eye, and after that I give time dictations, letting the children write down what they hear. I apply the educational maxim, "One difficulty at a time," as much as possible. Therefore in taking up a new melody, I let the children sing the syllable names first, so that there may be no confusion on that point, then I let them say the time names, beating the time themselves, and after that I let them combine the two.

At the meeting of this department in 1905 a vigorous protest was raised against hampering the grade teacher with methods. The speaker finished by saying, "Give her the benefit of teaching children and not methods." I most decidedly think that we cannot give a greater boon to the teacher than by giving her a good method; in other words, definite steps by which she can with the children climb up the steep mountain of art. It sometimes has been claimed that it is belittling art to be bound too strictly by laws. Yet, in order to become a worthy servant of this great mistress, we have to learn obedience, for there is no freedom but freedom under law.

ROUND TABLE

TOPIC—WHAT SHOULD BE EXPECTED FROM THE NORMAL SCHOOL IN THE PREPARATION OF THE GRADE TEACHER FOR TEACHING MUSIC, AND ALSO OF THE SUPERVISOR?

I. C. A. FULLERTON, PROFESSOR OF VOCAL MUSIC, STATE NORMAL SCHOOL
CEDAR FALLS, IOWA.

In the few minutes at my disposal I shall consider some phases of normal-school music that seem to me to be in special need of emphasis. After eleven years of experience in the music department of a normal school and after investigating quite extensively what other normal schools are doing in music, and what the public schools need and want, I am firmly convinced that the most urgent need is for the musical development of the students themselves. Let us imagine a new normal school with a body of students possessing average musical equipment when they enroll. These students need music before they have any need of methods for presenting music. If it were impossible to equip these students with both musical development and methods for teaching music there is every argument in favor of giving them musical development. From the standpoint of the school superintendent, for whom these teachers are at work, the supervisor with whom they are to teach, the communities where they are to live, the normal school itself, where they are to spend a few years, their immediate families, the students themselves, and the children whom they are to instruct, the musical culture of these students is of first importance. Fortunately music can be taught to adults by practically the same methods that should be used with children, and so it is possible to give the normal students this musical culture and musical experience and in the process of giving it to them, give them methods for teaching music to a large extent.

If this newly organized normal school is going to measure up to the reasonable demands of the twentieth century it must abandon the narrow conception of being merely a school of methods. The death knell to that kind of normal school is already in the air. It must become in its special sphere an educational center with ideals second to none and with an enthusiasm for scholarship which will be contagious. And it must add to this equipment of high ideals and scholarship skill in the art of teaching. The music department of this modern normal school, if reasonably well equipped, should be expected to accomplish three specific things: It should give a maximum of musical experience and training to the rank and file of the students; it should surround them with good musical atmosphere; and it should train them, in some degree, in the most rational and artistic methods of teaching music to children.

Now, for some practical suggestions on how to bring about these results.

So far as the musical training of the students is concerned the particular feature of the work that should be kept in the center of the stage is the beginning classes. The future of the department is carved out here. The teacher is put to his greatest test here and those who do not believe that music is for the benefit of humanity in general should be converted to that belief or abandon this field. The teacher who realizes the transcendent importance of this work will face it with a glad heart and if he succeeds with the musical development of these students he will succeed in doing three distinct things: First, and most important, he will get as much of the song spirit into their lives as possible by singing with them the very best and most attractive songs obtainable; second, by using these same songs as a basis he will develop technical skill in performing music; third, he will give these students good substantial training in the theory of music. The first two phases of this work can be given to these adults in practically the same manner as would be employed with the children, the third should be adapted more particularly to the adult mind.

In creating musical atmosphere about a school the most effective agency is the interest aroused and the skill developed in these beginning classes. Musical atmosphere can exist for the individual only in proportion as musicianship is developed within him. Every person, like a planet, carries his own atmosphere with him. We cannot create musical atmosphere *for* students. We must create it *with* students and with their active co-operation. Any sound education involves the double process of getting and giving—receiving impressions and giving expression to them, and leaving out one of these processes is about as futile as trying to cut with one-half of a pair of scissors.

This steady growth in musical skill and appreciation furnishes the much-desired educational spirit. The rest is comparatively easy. Glee clubs, choral societies, etc., will spring into existence and the school will enjoy the music of the masters. Voice teachers, piano teachers, and violin teachers will be demanded by this increased interest in music and they will be forthcoming. Concerts, recitals, and lecture recitals will naturally follow and a glad public will help to bear the expense. The music of the automatic piano player may well be introduced here, first to be enjoyed, then to be analyzed, then to be enjoyed the more. "Rag time" will take its exit as darkness does when you turn on the light—only not so suddenly. Real hymns will be sung oftener and religious "rag time" will gradually become distasteful.

A school for supervisors of public-school music, a discussion of which is excluded by the limitations of this paper, will naturally grow out of these conditions and where can there be found a more favorable setting for such a school? And where can be found a more attractive field for the musician who has the true educational spirit?

II. MISS JULIA E. CRANE, DIRECTOR OF MUSIC, STATE NORMAL SCHOOL POTSDAM, N. Y.

The question propounded for discussion does not state whether we are to consider what should be expected of normal schools under ideal conditions, or under existing conditions. But since we never reach the best results under existing conditions without a vision of the possibilities under ideal conditions, it is probably best to consider both phases of the subject.

My ideal state normal school is governed by a state board of education whose members realize the value of music as a factor in education, and a local board of similar intelligence. The principal of this school has sufficient musical education to know when music is being taught as it should be taught in a normal school; a man who cannot be duped by the teacher who knows music for school exhibition purposes only, or by one whose theories, rather than her practical knowledge, constitute her equipment for teaching. On the other hand, this ideal principal sees the normal-school music in its relation to the musical needs of the public schools, and is able to recognize the ability of the teacher who is supplying those needs, even though her psychology be practical rather than glibly theoretical, and her school exhibitions fail to compete successfully with "Wonderland."

The ideal music teacher in this normal school is first a man or woman of such nobility and purity of mind that he sees the development of character in the pupils as his first concern, the good of the school as more important than the extension of any one department in it, and the success of his own work measured by what he does toward fitting teachers for their life-work. This teacher is a man of broad culture, as well as a musician of high attainments, and a teacher by nature, by training, and by practical experience.

The course of study in this school, having been arranged by those who appreciate the value of music in education, is a practical and practicable one, and the time allotted for the work is sufficient to assure good results. With such conditions, the normal school is prepared to send out a large percentage of its graduates prepared to teach the music of the grades.

The training of the supervisor seems to me quite a different problem. A supervisor of music requires a broad musical training, which can be secured in this country from private teachers and in private schools only. Some normal schools have departments of music so associated with them that musical training and literary education may go hand in hand. This is an ideal arrangement, because normal training is certainly as important to the supervisor of music as it is to the grade teacher, and normal training without a proper equipment in musical knowledge is as fatal to success as is the reverse.

But the ideal normal school with a well-equipped music department is rarely found; a state board of education awake to the value of music in education, is equally rare; the principal who understands music sufficiently to help and not to hinder, is not yet a familiar type; and a course of study fully meeting the needs of the grade teacher in school music, is, so far as I know, not yet in existence.

What then is to be expected of the average normal school under existing conditions?

As nearly as I have been able to discover, the time allotted to music in most normal schools is one hundred hours, or one school period a day for twenty weeks. This includes both the time given to subject-matter and that allotted to methods of teaching. In an increasing number of schools, there is added to this opportunities for observation of model teaching and a few weeks of practice-teaching under criticism. In most schools there is volunteer work in chorus, and many hours of after-school rehearsing of music for public occasions. But when this work is compared with that of any other branch of study in the normal school, especially when the training previous to entering the normal school is taken into consideration, the difficulties in the way of reaching satisfactory results begin to appear.

When a student enters a New York state normal school he has had at least eight years in the grades and four years in the high school. During this time he has received an excellent education in the ordinary branches of study, but his training in music may have been entirely neglected, for in many communities there are absolutely no opportunities for studying music.

Is music so simple that a working knowledge of it can be acquired in one hundred hours, when arithmetic has required sixteen hundred hours, and English more than four times that number? After a student has had his sixteen hundred hours in arithmetic, the normal school provides as many hours for the study of methods in arithmetic as are allotted for his full course in music. Is music teaching such a natural gift that successful teachers can be expected under these conditions? Is it surprising that the statement is often made that the normal schools do not fit their graduates to teach the music of the grades?

But, I hear someone say, when you consider the small use which man makes of music compared with his constant use of English, is not music given its due proportion of time? If music were being well taught for fifteen minutes a day in every grade of every school in the country, and if to this were added a practical high-school course in music so that no one began a normal-school course without the knowledge this would insure, then the present allotment of time in the normal schools would be sufficient to bring excellent results. But until students come to the normal schools as well prepared for normal training in music as they are now prepared in arithmetic and grammar, the normal schools will be obliged to teach the subject-matter as well as methods. With this problem before us what is fair to expect of normal schools at the present time?

The wise teacher will recognize that there must be a careful examination of the subject of music in order that every unnecessary element be eliminated, and that such a part of the whole be selected for normal-school work as will best reach the needs of the grade teacher whose work is to be planned by an unknown supervisor. I am frank to say that there is but one phase of musical instruction which appeals to me as unquestionably first in the equipment of the grade teacher, and that is reading. Whatever system is used by the supervisor under whom the grade teacher works, the teacher who reads music is the only one who is fitted to carry out the directions given. Without the ability to read, appreciation of music, enthusiasm over its uplifting influence, and a repertoire of songs learned by rote serve very poorly as a preparation for intelligent teaching.

I would not be construed as despising any work in music which tends to make appreciative listeners, in fact, I believe that nothing is more distinctively the aim of school music than the development in children of that power of concentration and alertness of mind which make good listeners. But the grade teacher who does a large share of this work must read music in order to meet the simplest requirements toward this end. There is much scoffing amongst educators at the attempt to teach any theory of music in the public schools. This has no doubt come as a protest against the work of some supervisors who have given undue prominence to technicalities. There are musicians whose own training and experience have led them to believe that the whole structure of a musical education rests upon a clear understanding of scales and chords, cadences and progressions, as seen on the printed page. That this is a false basis for public-school work, I am prompt to admit. On the other hand, the superintendent who finds fault with the music teacher who requires quick recognition of the symbols of music and correct use of technical terms whenever terms are needed, forgets that in order to read understandingly, one's knowledge of the symbols which express the idea must be accurate knowledge. A teacher of music needs sufficient familiarity with musical symbols to be able to make blackboard illustrations, as the need arises, and in so doing to give correct, not false, pictures to her pupils.

The normal school then should so present music to the prospective grade teacher that she acquires the ability to read the music she must teach, and use the technical terms and musical symbols freely and accurately. In so far as it is possible, she should be taught to sing with a sweet and free use of her own voice. The training of teachers for kindergarten and first-grade music requires special stress on song singing and voice work, and normal schools with a kindergarten department should supply this, in connection with other kindergarten work.

But, I hear it asked, is there no song singing above the first grade? Song singing belongs to all grades, but the development of the voices of children must depend upon the supervisor, not the grade teacher. No teacher can be trained in this most subtle of all arts, voice culture, in the classroom. Private lessons with the highest authorities on the voice are none too good for the one who directs the training of children's voices.

The problem of the normal school is not to teach music in its entirety, but so to train the teachers it sends out, that they possess the knowledge upon which they can build most successfully, a knowledge which enables them to carry out intelligently the plans of the supervisor under whom they teach.

As to what should be expected of normal schools in the equipment of music supervisors, I must confess that I see no reason to expect anything, unless opportunities for extensive musical training are available. In normal schools where it is feasible either to oversee the musical education or to test it thoroly, it ought to be possible to prepare supervisors of the highest type, as the opportunities for the study of methodology and for practice-teaching must be superior to those of any other class of schools. Thoro musical training combined with a broad view of educational methods in all lines, definite and systematic methods in music, and the practice of actually teaching children in the various departments of music work, are all necessary to the adequate training of the supervisor.

The normal-school music teacher who expects to send out supervisors of music must be a musician, but something more than musicianship is requisite. Normal training should promulgate general educational principles, not personal, prejudiced opinions. Instruction in methods of teaching should be of a kind that will enable the supervisor to meet the varying demands of the communities by whom he is employed, to select materials suited to the needs of the pupils, to adapt his plans of work to the particular school in which he is teaching.

The seeds of sincere desire for progress should be sown, so that the young supervisor starts out with the knowledge that if he searches he is sure to find others who are doing better work than he: that at the feet of such he should be ready to sit, a humble learner. It is important that he learn to guard against the tendency of becoming so wrapped up in his own work that he forgets to investigate the work of others.

Nothing is more important in normal training than honest dealing. Without thoro musical training a supervisor is not well equipped. While a grade teacher may do her work without special voice culture, without a knowledge of music history, harmony, musical form, without a broad knowledge of music itself, a supervisor absolutely requires this training; and for a normal school to recognize any equipment less than this, as sufficient for a supervisor, is certainly a mistake.

And so, in a word, we may sum up what should be expected of normal schools in the training of supervisors in this wise: Unless normal schools are equipped for training or testing musicianship, they should neither be expected or allowed to send out music supervisors. If they are equipped to add pedagogical to thorough musical training, the highest and best results may be expected of them.

III. DAVID R. GEBHART, DIRECTOR OF MUSIC, STATE NORMAL SCHOOL KIRKSVILLE, MO.

Before me lies a compilation of the music courses in twenty-three normal schools, selected indiscriminately from Rhode Island to Washington; from Minnesota and North Dakota to Alabama and Texas.

Judging as best I can from the courses outlined (and I would say, in passing, that the courses are very poorly described) and explained in the catalogues of these schools, music in the normal schools is a sham and farce. Thirteen of the twenty-three have one teacher each in music; these must be dreadfully overworked, and work as hard as they may it would be impossible to cover systematically and thoroughly the courses prescribed. Outside of Missouri there is but one school in the lot, Cedar Falls, Iowa, that has an adequate force of teachers, yet even in Cedar Falls the course is not complete.

Seven maintain orchestras, while six have brass bands or mandolin clubs. One must feel very sorry for the musical culture that cannot progress beyond the latter organization. Six appear to have regular classes in the history and biography of music; four seem to have a little of this subject instilled by the "lecture process." All have some form of sight-reading classes, and almost all offer opportunities for individual instruction in instrumental and vocal music. But only one offers the individual instruction without extra charges. What a system of graft! What would be thought of an institution, a state institution, which taught the "A-B-C's" or tables of multiplication, addition, and subtraction, and then charged extra for literature, English, science, or mathematics in higher forms? This is not right, and until it is corrected, music in the normal schools can never take its proper place.

Some of these schools actually offer diplomas in vocal or instrumental music. What right has a normal school to attempt this? No student can carry a regular program of academic and professional studies and at the same time have sufficient time to give to practice to gain proficiency to the extent of receiving a diploma as either a vocal or instrumental artist

This is not only a fraud on the student, but a fraud on the state which is not supposed, at the present day, to pay even a pittance of a salary to enable her institutions to compete, through cheapness of instruction, with the colleges and conservatories of music. The normal school and private schools of music cannot and must not be competitors. Each has its distinctive mission. The normal schools are to prepare serious-minded, steady, conscientious men and women to instruct, and create a love in the hearts of the children of the country for the very best there is in music, and to instil this knowledge scientifically and without waste of time or experimentation after reaching the schoolroom. To do this the normal schools must give a sound foundation and general musical education covering in its scope everything from classes in simple sight-reading to form and composition, including instrumentation and orchestration. Enough individual instruction should be given to insure proper tone production even in a mediocre voice, with sufficient knowledge of the piano to enable the teacher to accompany during rehearsals, choral, and other works. The violin being an excellent substitute for a poor voice, in an otherwise good teacher, is a very important adjunct and therefore should be taught at the expense of the state. This is a field purely for a normal school; the colleges and conservatories of music are not equipped to do thoroughly this work, their faculties being made up largely of foreigners who are specialists in their lines, oftentimes out of sympathy with, and having no knowledge of, the educational principles of our country.

Some states have at present a law requiring proficiency in music of the teachers in their schools and require a license by examination. Where can the teachers get this required knowledge if not in the normal school? Teachers are never fabulously wealthy from their salaries, and if the state is to require this musical knowledge the state must furnish it at the same reasonable rates and include it in the curriculums of her normal schools, and not subject her teachers to the graft of specialists even at a low figure per lesson, for the lower the price the poorer the teacher, hence the greater the graft.

Some seem to think that the normal school should prepare the teacher for the grade school only, leaving the preparation of high-school teacher and supervisor to other and higher institutions. This is the old story over again that an inferior, or any teacher will do for beginners in music. This pernicious idea has long prevailed in private music instruction and for a long time dominated in public-school music and is accountable for the general poor standing of music in the schools at present.

There is one kind of school, not yet mentioned, that is doing excellent work in the preparation of the elementary teacher and supervisor of music. This is the "summer school" as conducted by some of the much-berated book companies. These schools are practical to a degree that the normal schools might well imitate. They are "short" on theory but "long" on practicability. Their usefulness is necessarily limited by the shortness of their terms and the long intervals between terms and they must, by force of circumstances, be schools of suggestion.

It is not so much a question of, What can be done for music in the normal schools, as what *must* be done if music is to take her place as a subject of educational value in our schools. It is only a matter of time until, as state after state requires the teaching of music, the music departments of the normal schools will be enlarged and given due credit, just as the study of English has at least reached its rightful place.

To sum up then: "What can be done in music in the normal schools?" We wish to state that everything can be done, to better advantage, in a normal school for the preparation of the public-school music teacher or supervisor than in any other institution. This is a peculiar possibility of the normal school, through the sympathetic correlation of academic, professional, and cultural subjects in relation to their actual application in the public schools.

DISCUSSION

IV. MISS CLYDE E. FOSTER, STATE NORMAL COLLEGE, YPSILANTI, MICH.

The musical education of the masses rests with the public school. If music, this great art subject, is to be a potent factor in the life of a great nation, if America is to produce a music-loving people, then the music in the public school must steadily advance in the educational march of progress.

It is most interesting to note the marked progress, in the past decade, in the methods of presenting music, the awakened interest of educators, and the stride made in accomplishing great results, but is there not much more yet to be done if the goal is to be reached?

The grade teacher is the means thru which the child is educated in music. The teacher who comes in daily contact with the child, who knows each child as an individual to be loved and helped, it is she who can do most in music. A noble mission hers, to be able to touch the child's life with the vitalizing force of music for a song singeth in the heart alway and,

Doth not song to the whole world belong,
A heritage for all?

The joy experienced in teaching the same class of children each day, studying the musical growth of each child, noting the power of music to vitalize his life, and further, what it means in the development of his very being—this cannot be measured and is something greater than any glory that comes to the supervisor.

How can we as thoughtful, serious-minded supervisors lead the grade teacher to realize that the teaching of this subject is one of her opportunities for doing the greatest amount of good, rather than imposing another burden? For a desire on her part to know and to do is the first requisite. Again, how can the quality of teaching by both grade teacher and supervisor be improved? It is a fact, readily conceded, that the preparation of the grade teacher is inadequate, or of the kind that fails to meet the demand of modern methods. The supervisor is often the musician, not the teacher. One of the encouraging signs of the times is the increasing number of prominent schools making the public-school music department a leading feature; another, that superintendents are demanding trained supervisors of ability.

It has been said that the normal school is not doing her part in the musical education of the grade teacher. Whereas the condition is not yet ideal, I believe that the normal school is doing an earnest, conscientious work, that credit should be given her for what she is doing, and that help should be extended by every teacher, enabling her to do more and to see greater light on a live question of no little magnitude.

What should be the equipment of the grade teacher to do effective music teaching? Briefly stated: it is a stimulating interest in the subject, a keen sense of musical taste and appreciation; a development of the power of interpretation and expression; a cultivation of whatever musical ability she may possess; power to present a song in a simple, light, sweet musical voice, untrained though it may be, with some degree of musical intelligence; a mastery of the simple music elements; and lastly, some training in accepted methods of presentation. And for the ideal music supervisor, what should be the requirements? Musical ability; good scholarship; love of subject; sympathetic interest in and knowledge of children; teaching power; professional training, and a broad musical culture—this, and even more.

The Conservatory of Music affiliated with the State Normal College of Michigan, under the authority of the State Board of Education, has completed twenty-five years of notable service in genuine musical culture. Frederic H. Pease, its founder and present director, musician, composer, conductor, and teacher, beloved and revered by all, the man who, for many years, has molded the musical thought of Michigan and is still doing active service; he who has tutored her sons and daughters and launched them in the field of musical endeavor; it is to him we gratefully acknowledge our keen appreciation of this valued service in the cause of music.

All music classes in the Normal College, free of expense, are opened to normal as well as conservatory students. Classes are offered in voice culture, elements, harmony, music methods in primary grades, grammar grades, and high school, history and literature of music, counterpoint, form, and composition. To those students preparing to be primary grade teachers a twelve weeks' course in music, covering the work of the primary grades, is required. The other classes are elective and credit is given. A class combining elements and methods is offered to meet the demand of students preparing to teach in the grades, who because of limited time can give but one term to the course. For those more ambitious, provision is made for an advanced class in music methods, which must be preceded by twelve weeks of elementary work. A credit for a teacher's course is allowed in this class. The crowded condition of method classes demonstrates the desire on the part of the college student for musical knowledge, and is a recognition of the place of music in the school curriculum.

Three special two-year courses for music supervisors are offered: public-school music, music and drawing, music and physical training. These include, besides the required music classes, psychology, general methods, advanced English, and twenty-four weeks of student music-teaching in the grades of the training school, under the personal supervision of the music critic. It is here that the student learns to assume greater responsibility, to plan and give a lesson according to pedagogic law, to observe illustrative lessons, and to do the petty round of routine work, as well as prepare and present a children's artistic musical program.

The music supervisors graduated this year numbered twenty-six bright young women, the most of whom have already accepted good positions in the states of Michigan, Indiana, Ohio, Wisconsin and Washington.

DEPARTMENT OF BUSINESS EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—H. B. Brown, president, Valparaiso University, Valparaiso, Ind.
Vice-President—James Ferguson, Department of Commerce, High School, San Francisco, Cal.
Secretary—James S. Curry, Commercial Department, Central High School, Cleveland, Ohio

FIRST SESSION.—Tuesday Morning, June 30, 1908

The Department of Business Education of the National Education Association met in the Assembly Room of the Spencerian Commercial School, Cleveland, at 9:30 A. M., and was called to order by the President, H. B. Brown.

An invocation was offered by Rev. H. D. Fleming, Lakewood, Ohio.

A vocal solo was rendered by Miss Frances Walton, of Lakewood, Ohio.

The President's address was delivered by H. B. Brown; subject, "The Genius of Business."

Irving R. Garbutt, director of the Commercial Department of the Central High School, read a paper on the topic, "The High School Commercial Course: Its Subjects; Their Practical and Educational Value."

The next paper, subject, "Proper Methods of Instruction in Shorthand," was read by Selby A. Moran, director of shorthand department, High School, Ann Arbor, Mich.

The last paper of the session was read by H. M. Rowe, educational publisher, Baltimore, Md. Subject, "To What Extent May Commercial and Industrial Training Be Properly Included in the Grammar-School Course?"

The President appointed the following committees:

ON NOMINATIONS

D. W. Springer, Ann Arbor, Mich.
H. M. Rowe, Baltimore, Md.
I. R. Garbutt, Cleveland, Ohio

ON RESOLUTIONS

S. R. Hoover, Cleveland, Ohio.
Miss Olive Pittis, Cleveland, Ohio.
D. W. McMillan, Detroit, Mich.

The Department then adjourned to meet at 9 o'clock Wednesday morning.

SECOND SESSION.—Wednesday Morning, July 1

The meeting was called to order at 9:00 o'clock by President H. B. Brown.

The topic, "What Should Be Done to Encourage College Education beyond the Commercial Course in High Schools?" was presented by Pemberton J. Twiggs, director, Commercial Department, East High School, Cleveland, Ohio.

S. R. Hoover, president of Commercial Club High School, Cleveland, Ohio, led the discussion of the above paper. He was followed by Dr. Charles DeGarmo, Ithaca, N. Y. and D. W. Springer, Ann Arbor, Mich.

The second paper was read by Cheesman A. Herrick, Central High School, Philadelphia, Pa. Topic, "How to Get Teachers of Commercial Subjects Who Are Better Prepared, and to Improve Those Now at Work."

Mr. Herrick's paper was discussed by Edward Rynearson, director of high schools, Pittsburg, Pa.

The next topic, "Standards of Commercial Teachers, Present and Ideal; Comparison with Standards for Other Teachers," was read by Durand W. Springer, High School, Ann Arbor, Mich.

The last topic of the session, "Methods of Preparing Teachers in Germany," was presented by Charles DeGarmo, professor, science and art of education, Cornell University, Ithaca, N. Y.

The Committee on Nominations reported the following:

For *President*, S. R. Hoover, director, Commercial Department, West High School, Cleveland, Ohio.

For *Vice-President*, D. W. McMillan, director, Commercial Department, West High School, Detroit, Michigan.

For *Secretary*, H. C. Spillman, Commercial Department, Butte High School, Butte, Montana.

On motion, the report of the committee was adopted and the nominees were declared elected as officers of the Department of Business Education for the ensuing year.

The Committee on Resolutions presented the following report:

Resolved—

First, That we express our appreciation of the fact that there has been and continues to be marked improvement in the qualifications of teachers of commercial subjects, and that we recommend a still higher standard of general preparation. To this end we pledge our loyalty to the Department of Business Education of the National Education Association as one of the valuable agencies aiding in this direction.

Second, That we recognize the advance of confidence in the higher value of commercial courses, as recently enriched, among the members of the general commercial community.

Third, That we manifest in all proper ways our approval of those colleges which, in increasing numbers, admit students from commercial courses on the same basis of opportunity for advanced work as they do those who come from other courses.

S. R. Hoover
Olive Pittis
D. W. McMillan,
Committee

On motion the resolutions were unanimously adopted.

The department then adjourned.

Note.—The Department of Business Education this year enjoys two noteworthy distinctions; viz., the largest attendance since the organization of the department, and the complete rendering of the program as published.

James S. Curry, *Secretary*

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

THE GENIUS OF BUSINESS

H. B. BROWN, PRESIDENT OF VALPARAISO UNIVERSITY, VALPARAISO, IND.

As a part of the great National Education Association we are met not merely for social purposes, tho this means much, but as a body of thinking men and women to discuss important questions which should be for the betterment not only of business education, but to advance the cause of general education as well. This department has to do with the working out of the principles of a general education; or in other words, the application of knowledge in such a way as to bring about satisfactory results. Without a knowledge of how to apply an education it is almost without value. A business education then consists not only of a knowledge of accounts, mathematics, science, literature, but also of the power to give direction how best to use the knowledge derived from these sources.

Looking at it from this standpoint the Department of Business Education occupies no mean place among the departments of this great educational gathering. The department is to be congratulated on the work already done. It has not only advanced the cause of business education in the past, but it has had the good sense to foresee the needs of the future. The high ideals set forth in the early history of this department have enabled its founders to meet the changing conditions of the business world.

Not many years ago it was thought that a general education was not necessary. Whatever the notion may have been the schools of commerce in the public schools and universities, as well as the private commercial colleges, now realize the necessity of careful academic training as a prerequisite to a satisfactory business career. This idea has taken such a hold upon the public generally that now the business men who did not have the advantage of a high-school or college training (or having had the advantage did not avail themselves of it) are so impressed with the idea of its necessity that many of them are entering our schools and colleges and taking regular courses of study. Others employ private instructors. There are very few men who are not aroused to the value of college training.

The time has come when everyone must *know* for himself, and it is the business of the commercial schools not only to train young people for routine work, but to train them so that they may be able to direct any business enterprise no matter of what magnitude.

Business men, however, do not undervalue the practical part of their work. They are already knocking at the doors of the schools of commerce for many other departments, as is shown by the lecture system in our large cities. But the schools are alert and I am sure will forestall every need that may arise.

This department has always advocated a high standard of work. I congratulate it on the progress it has made and the value it has been to the advancement of the commercial interests of the country.

For the few moments taken in opening this session I shall confine myself to what may be considered an abstract subject; nevertheless it is thoroly practical—*The Genius of Business.*

What is genius? As we understand it, genius is not the power of one mind over another, it is not the power to do things that have already been done, but it *is*, in reality originality—the power to think things that had never been thought of before and to do things that have never been done before, and in a better way than they have ever been done before—the ability to take the initiative. Many are followers, but few are leaders. There are plenty of men who can do very well if they have some one at hand to stimulate and encourage them, but who lose heart unless some stronger personality is near to brace them up, reassure them, give them advice. Such people ever look without and not within. They use another's power, not their own. They do not think for themselves. The old adage, "He who will not work shall not eat," should read, "He who will not think shall not work." Any one by practice may possibly improve a work already done, but this does not indicate genius; it is merely following a well-beaten road. Genius makes the way. Nor must it be thought that genius is the application of some mysterious gift by means of which a thing may be accomplished without effort; it is not a sleight-of-hand performance nor is it simply an accident. Men of genius have always kept in view the injunction "He that loses his life shall save it."

I think it was Newton who, in reply to the whimsical utterances of some of his contemporaries who thought that he had peculiar power or skill by which he accomplished certain things, said, "If I have done anything worthy of notice or of service to the world it has been owing more to industry and patience of thought than to any extraordinary sagacity. In developing any new theory I kept the subject constantly before me and waited until the first dawnings opened slowly, little by little, into the full clear light." In other words, his great lessons to the world were the result of constant, unremitting labor, diligence—unwearied diligence; and not only Newton, but other great geniuses, such as Herschel, Demosthenes, Plato, Horace, Edison, and hosts of others were the most untiring workers of their times.

The Scripture admonishes us through David in the same way: "Great are the works of the Lord, *sought out* of all men who have pleasure in them," but they must be *sought out.* One day after having completed a certain work a young man approached a sage with the question "Don't you think I am a genius?" and he received the following very pertinent reply:

> Has your diligence been greater as the difficulties which you met increased, like Herschel? Have you been content to advance in knowledge, little by little, like Newton? Have you pined and lost relish for all other objects when you have lost communion with your books, like Petrarch? Has not a single day passed without a line devoted to your labors, like Apelles? Have you kept your composition nine years under your eye, as advised by Horace, and all that time, by day and by night, examined the writings of those who have lived before you? Have you labored to conquer physical defects and struggled, as it were, against nature, like Demosthenes? Have you become so interested in your undertaking that you would forget to eat or sleep, like Edison? Have you always done more than you were paid for doing? Have you been so loyal to your employer that you would sacrifice an opportunity for your own promotion that his might be advanced? Have you used your every power and then waited year after year, patiently and honestly for results? If so, then you are a genius. If you have been unwilling to do like things, if you have been a murmurer and a complainer, you have been a failure and the writer of the following evidently had you in mind many centuries ago when he wrote this:

> With much ado, his book before him laid,
> And parchment with the smoother side display'd;
> He takes the papers; lays 'em down again;
> And, with unwilling fingers, tries the pen:
> Some peevish quarrel straight he strives to pick;
> His quill writes double, or his ink's too thick;

> Infuse more water; now 'tis grown so thin,
> It sinks, nor can the character be seen.
> O wretch, and still more wretched every day!
> Are mortals born to sleep their lives away?

Genius has not a peculiar cell in the mind which in some mysterious way is unlocked, letting in new light; rather, it opens the way patiently and laboriously until after a while the light may be seen and a new world discovered. Genius shows itself in so many ways. He who plans a more beautiful landscape than has ever before met the eye is a genius in a humble degree; but he who plans and executes a stately edifice in which symmetry and utility are more practically united in all the parts, both exterior and interior, than mankind has ever yet beheld is a genius of a high order. In other words, he who does anything better, more enduring, more useful than it has ever been done before is a genius. It is not a gift; it has its own price which is work—patient, eternal work. I have been trying to show that genius is the highest form of concentrated effort; that it is nothing more than painstaking, persistent work, "one-tenth inspiration and nine-tenths perspiration," as someone has said.

By possessing the spirit of true genius (which is hard work) man may accomplish whatever he wills, because he possesses the power which originates, the power which gives him faith in himself, the power to see the future; and though ofttimes the days may be so dark that he cannot see his way, yet, having experienced the results of genius, he does not falter. And as each succeeding day he has the added power of all the days gone by and though now his work might be accomplished with less effort, still he knows that he must put forth even greater energy and grow stronger and overcome all difficulties in order that he may realize his loftiest dreams.

Such a man murmurs not. He does not exploit his work, but he lets it speak for itself. This man is honest with himself and honest with his friends. He is valuable not only to himself but to those about him, and many of the shortcomings of others are silently carried by him. He accepts his full share of the burden of the community in which he lives. He builds up but does not tear down. He sees beauty and goodness in all places, in God and in humanity. The life of such a man is not alone a useful life, it is a beautiful life as well.

Why have I written this? Lest those of us who are intrusted with the business education of the youth of our land, who confide in us, who believe in us, forget in this age of frenzied finance that the way of success still lies along the old beaten highway of work. Lest we forget that man's fortune lies in his own brain and character, and that *fate* is inside and not outside the young man who enters the field of struggle, and that it is our business to teach him to depend upon himself, upon his own inherent powers cultivated as he may cultivate them; that he should not be deceived by the *exterior* signs and symbols of the career of the man who has made his way and found his place among his fellows, but rather by what the man has really done. Money obtained as the result of the application of the man's brain to his work and the uses of the man's opportunities by a man's character, is a substantial and honorable evidence of inward power; and behind every fortune worthily made, behind every kind of work effectively and honorably done, there is an immense moral element from which it can no more be separated than fruit can be grown apart from the tree which produces it. Lest we forget that we should use our utmost power to prevent the maddened rush for ill-gotten gain and check, as far as possible, the onward growth of this spirit and keep our youth in the paths of honesty, integrity, purity, and loyalty. Lest we forget that our country, if it shall stand, must be built upon a strong foundation of truth and justice, and that this foundation must be supported by brave young people whose lives are too pure to be turned aside from duty, who realize that to accomplish a great work they must be free, and to be free they must be honest without and within.

THE HIGH-SCHOOL COMMERCIAL COURSE: ITS SUBJECTS, THEIR PRACTICAL AND EDUCATIONAL VALUE

IRVING R. GARBUTT, DIRECTOR OF COMMERCIAL DEPARTMENT, CENTRAL HIGH SCHOOL, CLEVELAND, O.

An education is a development by culture and experience of that which is in the individual, to the end that his best destiny may be accomplished.

Classical, literary, industrial, and scientific are terms generally understood as applied to the ordinary plans of education; but just what is meant by commercial education or "business education" is not clear even to the average schoolman, to say nothing of the general public. If they have an idea at all it is generally very narrow and limited to a knowledge of two or three subjects, i. e., bookkeeping, shorthand, and typewriting, with penmanship, perhaps, thrown in on the side.

But school people in particular and the business public in general are beginning to awake to the fact that a commercial education means far more than the teaching of bare commercial subjects. They have learned that commercial needs demand a larger and better adaption of education; that it means that form of general education which prepares young people to serve intelligent apprenticeships in business pursuits. They have learned that, to insure the success of the large and increasingly larger army engaged in industry and commerce, they must have a broader view of things in general and a training which will make them at once more intelligent and efficient.

Business at the present day is a new occupation and requires a broad training, more extensive and thoro than was necessary under former conditions. Positions of responsibility require intelligence, with rapid thought, sound judgment and accurate conclusions—powers that education alone can give. Production, manufacturing, transportation, the organization of any great industry—all these offer a field of great practical utility, and those who undertake to handle these great problems will succeed or fail as they are able to analyze these situations and meet their demandsfactorily.

The school cannot create the tendencies of the age, and therefore will do wisely to adapt itself to them; safety lies in rightly interpreting the past and planning for the future.

The wars of the future are to be wars of competition, their commanders great captains of industry, and the victories of the twentieth century are to be economic victories, and they will rest with the people that can best utilize the agencies of modern, industrial and commercial life. If we are to win in this new warfare we must equip those who enter the great strife of commerce and industry with the ingenuity to invent, the skill to adapt, the leadership to organize, and the intelligence to extend.

The great crying need of business today is absolute integrity and the best protection against business dishonesty is for the business man to know how to secure an honest gain. Men in business need a training that will enable them to see in their business more than the profit or the giving or taking advantage. The school should impart by atmosphere and example these great business essentials and its ultimate aim should be to educate to make a man. Granting then that special training for business is necessary and possible, where should it begin, how long should it be continued, and what studies should be included in the list to be pursued?

In order that the public-school system may do the greatest good to the greatest number it is advisable to begin this training as early as is consistent in the grammar grades, the seventh or eighth at the latest. I do not mean that a separate course should be given in these grades for this work but that the work of the grades should be such that on its completion the boys and girls will have a working-knowledge of things pertaining to business. Some of the reading should be on commercial matter of general information; the arithmetic taught should mean more than to get the answer in the book, or that 6 per cent. a year is one-half of 1 per cent. a month; it should have some bearing on the practical problems of everyday life and the child should be made to realize and understand that is what he is studying it for, not merely to add, subtract, multiply, and divide correctly.

The geography presented should not be limited to the position of countries on the globe, their cities, lakes and rivers but should include the reason why the great cities are located where they are; what has caused their growth and material importance; the value and importance of the lakes and rivers as highways of commerce and transportation as well as their position should be shown.

The history should reveal not so much of war and disaster but the early beginnings of agriculture, manufacturing, and commerce and how the early beginnings have developed and grown to be the world wonder of today.

The foundation principles of keeping accounts should be taught here so that those who are so unfortunate as not to be able to continue further than the grammar school may have the ability at least to keep their own accounts.

On entering the high school the boys and girls should find a course of study so arranged that they may pursue both cultural and special commercial subjects in such a way that a broad, liberal education may be acquired, together with a practical knowledge of the technical subjects pertaining to business, commerce and industry. This course should be placed on an equal basis with the other courses and should continue, at least, four years.

The foundation subject of this course should be English, real English. In the earlier years it should include composition-writing with attention to spelling, sentence and paragraph structure, short essays on familiar subjects and an introduction to the history of American literature. Every exercise, every subject and recitation should be made an English recitation until accurate expression becomes easy and habitual. Good form and correct expression must be one's constant resource for daily and hourly use; because fluent, natural expression, either in oral or written discourse, is most effective. The business world does not need great orators but it does need those who can talk—and talk sensibly and convincingly--on a given matter. Letter-writing, as to form and subject-matter, should be studied and practiced until correct form and ease of expression are acquired. English, therefore, should be studied thruout the course of four years.

At least one other modern language should be studied besides English, and the language to be chosen in framing the course must depend largely on the locality because of its local commercial value and use. In New England, for example, I should say French; in Cleveland, German, and some other locality, perhaps, Spanish; the language once begun should be carried long enough to make its cultural value felt.

What has been said regarding the study of history in the grammar grades will apply equally well in the high-school course, especially in English and United States history.

Mathematics should form an important part of the training of this course because of the exactness of this science; accuracy in all things is absolutely essential, not only from a bookkeeping standpoint but from a success-in-business standpoint as well. The mathematics should include algebra for its developing of the reasoning powers; arithmetic with its commercial applications especially emphasized (to which I shall refer later), and plane geometry as a training in logical reasoning, with special emphasis given to principle of measurements. Frequent drills on short methods and rigid mental exercises should be of daily occurrence. These latter can be made of great practical value as well as an important factor in the developing educational process.

Commercial law should have a prominent place in this course, not with the idea of making lawyers of those who pursue it, but that a knowledge of the many papers used in every-day business may be acquired; not only their forms but their legal status should be emphasized because by attention to accuracy in form and relation to the little matters of detail in business larger and more complicated difficulties may be avoided.

The new science of commercial geography should also be included because of its great possibilities for a broad culture as well as a practical working-knowledge of the commodities and conditions which have made this country today the greatest agricultural, manufacturing, commercial and industrial nation on earth. Production, transportation, manufacturing, mining, forestry, and farming offer a wonderful field for individual research. As classwork, reports and papers on the many phases of these great industries by the students before the class afford an opportunity for a training and culture that can be acquired in almost no other way. Here is the teacher's great opportunity because in no other subject is it possible to show so clearly man's dependence on mother earth for his daily sustenance and the relation of one part of the country to other parts and the whole to other nations.

Civics and economics should be studied so that the student may know and understand local municipal organization as well as the workings of the general government; with this knowledge he will understand and realize his individual duty and responsibility to the whole and thereby become a better citizen.

It now remains to consider the technical studies which aim at its application.

In the secondary school, bookkeeping, shorthand, and typewriting are the subjects to be considered. I have read and have heard it stated that these and similar subjects have no cultural or real educational value; and it is more to be regretted that these statements sometimes come from those who are engaged in educational pursuits; it is unfortunate for them because it goes to show the lack of an appreciation and breadth of the knowledge and culture they are supposed to possess.

If any subject is studied solely with the thought of the material gain which it will produce in the future there is little culture in it that is worth while, but, on the other hand, if the poorest subject is studied with the idea of getting at the foundation principles upon which it is based, and their application to one's future life and conduct, there is bound to be a culture derived which honest effort and application in study always produces.

In the first year the principles of bookkeeping should be thoroughly presented by the teacher and, by oral recitation and written class work, be as thoroughly mastered by the pupil. The old method of giving a boy a text-book with a few rules of debit and credit and some printed forms and outlines to follow and then leaving him alone to sink or swim in this, to him, new science sea, according to the determination he has or, in some instances, amount of tuition he has paid in advance, has done much toward putting this admirable science into pedogogical disrepute. There is no reason why this subject should not be, and every reason why it should be, presented to a class as a whole, and that all in the class should study and recite on the same lesson each and every day.

To my mind this is one of the most important pedagogical points in teaching this subject; the method of letting each student work along by himself is pedagogically bad because the principles involved in each transaction are not brought out and made clear, the inspiration, help and interest always derived from a well-directed class-recitation is lacking; the slow student becomes slower and, as the work gets harder and more complicated, becomes discouraged, quits and drops out, while his brighter classmate works out the sets in a mechanical way without knowing much of the why he does it.

On the other hand, if a lesson is assigned to the class as a whole and at the next recitation the pupils are called upon to give an oral recitation, bringing out the principles and their application to the matter involved and the teacher giving such explanation, help and direction as is necessary, I know that the class will then be able to write out the work more intelligently. The slow pupil will soon forget he is slow by seeing that he is up with the class and the bright pupil's work will be more satisfactorily done.

In the second year sets of special application involving special columns may be introduced and worked out in the same way, and as the bookkeeping transactions become more complicated, and the arithmetical calculations more difficult, the two subjects should be taught as one, first, because of their close relation to each other, and second, because the pupil will understand the application of the one to the other if they are put together. To illustrate:

A bill of merchandise is bought on terms of 3–10, *n*–60; the purchaser wishing to take advantage of the discount offered has his note discounted at the bank for such an amount that the proceeds will pay the bill less the discount. Anyone familiar with these subjects will see at once that trade discount, bank discount, and the general principles of percentage are here involved. The pupil will see more clearly the relation the arithmetical part bears to the bookkeeping part and that the latter will not amount to much unless the former is absolutely correct.

At the beginning of the third year, after the pupils are well started in the course and a good English foundation laid for it, shorthand and typewriting should be presented. I believe at this point an elective should be offered, e. g., it should be so arranged that, if a boy desires, he could take manual or industrial training instead of shorthand because many are naturally so inclined and as such training would have a greater bearing on the work which he is to pursue. The subject that is chosen should be continued through the rest of the course, that is the last two years.

As shorthand is essentially a new language, or an old language written in a new way, the cultural value of this subject is broad because the very essence of sounds and structure must be gone into; and in its successful application an absolute knowledge of phrasing, paragraphing, punctuation and spelling must be acquired. The business man is willing to pay the largest salary to the stenographer who can cover up his multitude of rhetorical sins by putting his ideas into good form and correct English for him.

In the fourth year time and attention should be given to office practice and the application of bookkeeping to a variety of kinds of business; not that we should attempt or pretend to teach "actual business practice" because that would be absurd, but that the pupil may have an opportunity to apply the principles he has learned to the needs of the many kinds of business and to illustrate, as nearly as possible, how it is done in the actual business world. This course should be at once a preparatory and finishing course, broad enough and practical enough so that those who complete it creditably may enter the business world or go on to higher institutions of learning for the continuance of a similar course.

I believe if this or a similar course is well pursued under the direction of well-trained, broad-minded instructors it will give at once a broad culture and a practical training of lasting value, and I trust that the time is not far distant when all colleges will recognize the merits of such a course and will accept the credits or points given it and will, on proper certification by principals of high schools, accept those who have finished it successfully to courses of a similar character. I am sure if this is done that a larger percentage of the high-school graduates will enter colleges, that the present courses will not be impaired and that a broader field of usefulness will be the result.

THE TEACHING OF SHORTHAND

SELBY A. MORAN, INSTRUCTOR IN SHORTHAND, HIGH SCHOOL
ANN ARBOR, MICH.

Proper methods of teaching shorthand depend largely upon the preparation of the teacher and the proper conception of his duty. Without these the teacher cannot discern between good and bad methods. Even if good methods are explained to him, he will not be able to make intelligent use of them. I shall, therefore, speak first of the preparation of the teacher, because the proper preparation means the intelligent application of proper methods. I shall also discuss several features which are often ignored in the treatment of this important subject.

I. THE PROPER PREPARATION OF THE TEACHER

a) The most, tho not the only, important thing is good, general education. During recent years the one thing that has worked the greatest discredit to shorthand is the lack of a good, general education of the teachers, an education that would place the instructor on the same plane with teachers of other branches, which would enable him to understand what is good and what is bad in the system taught; what are good and what are bad methods of teaching; and especially to know that there is a difference in methods. Fortunately the tide is turning. It is not unusual, however, even today to find, in large and well equipped schools, teachers of shorthand who have only the training obtained in some small high school or a few months' course in some commercial school. Often such teachers have made up for their deficient education by outside study and by wide experience, and have become capable and successful instructors. Such successful teachers are the exception. It is natural, therefore, that high-school men should hesitate about placing in charge of their shorthand department teachers deficient in general education.

b) The teacher should have, in addition, a thoro knowledge of some good system of shorthand. By "thoro" I mean all for which that word can possibly stand. He should know its principles and their proper application so completely that every question may be answered instantly and correctly. He should also have a good general knowledge of all the leading systems of shorthand and be able to make intelligent comparisons between them. He should be able forcefully to present every possible argument in favor of the system he uses. Otherwise he will be sure, at times, to be placed in an embarrassing position.

c) He should thoroly understand the historical development of his system. He cannot appreciate its merits and its present state of perfection if he does not understand the various stages of its development. Such knowledge is the foundation for a thorough understanding of any system of shorthand. I desire to say in this connection that no system of shorthand can be said to be perfected and sure of an enduring existence, and therefore worthy of general adoption, which has not successfully stood the crucial test of at least a generation or more of general use and has shown itself capable of producing many high grade reporters. All the really good and enduring things are of slow growth.

d) The successful teacher must have more than ordinary skill in explaining the principles. He should be able to make them so clear that even the dullest student cannot misunderstand them. He should thoroly understand that in shorthand, unlike other studies, the principles of outline formation must be so firmly grounded that instantly, and while under great stress the student can decide correctly upon the proper outlines for difficult words and not be confused by outlines which he has never written before.

e) He should have at least some practical experience. He cannot possibly understand or appreciate the many little practical things about which he must advise his students unless he himself has done shorthand work.

f) The shorthand teacher must develop, if he does not possess, a sympathetic nature. The learning of shorthand requires an unusual amount of patience and a great deal of monotonous practice. Unless the average pupil feels constantly that he has the teacher's hearty sympathy, he will become discouraged and very likely give up.

g) The teacher should understand much of ordinary student nature that he may readily perceive the strong points as well as the weaknesses of each. He should know how to appeal directly to each one that he may inspire him to put forth his best efforts. Without a painstaking study of each student in order to discover what personal help and encouragement each should receive, he cannot possibly obtain the best results. This is more true of shorthand than of any other study, because the successful reporter must have more thoro and painstaking training and drill, along both mental and physical lines, than in any other branch of education.

II. ORDER AND METHOD OF PRESENTATION

a) The proper sequence in the introduction of the principles is especially important. The teacher should be able to appreciate the standpoint of the student; that he is ignorant of even the most elementary principles. He should introduce new principles in the order of their increasing complexity. As far as practical, related principles should be grouped. It is a mistake for a teacher of Pitmanic shorthand, for example, to introduce the halving principle, one of the most difficult in the system, at almost the very beginning of the study.

b) He should utilize as many as possible of the five senses. First explain each lesson thoroly; then have the pupil study the principles from the textbook; then write and re-write many times a large number of words and phrases illustrating each principle. He will thus utilize at least three senses. The impression thus gained will be increased geometrically, that is, it will be, not three times, but six times more firmly fixed than if he had only heard it, or merely read it, or had tried to learn the principle by writing only. This would eliminate almost entirely the danger of acquiring bad habits which so greatly handicap many reporters.

c) When best to begin practice for speed is important. Careful study of the development of the working of the mind and best methods of acquiring physical dexterity will demonstrate that the best method is to study only a single principle at a time, this to be followed by an abundance of practice involving the use of that principle. Each exercise should be written many times or until the beginner is able to write it readily and accurately at a rate of 100 words or more per minute. This method permanently fixes each principle in mind and gives the student a great deal of speed practice. There is decided economy in this method.

d) Material for practice is rarely given enough attention. Recently I visited two shorthand classes. One teacher was using for his beginning class in speed practice a copy of McGuffey's First Reader. The matter was necessarily simple and especially well adapted to beginners. The students wrote it readily and translated promptly and accurately. The students were encouraged because they could see that they were accomplishing something. In the other class, the teacher was dictating to a class of beginners from a translation of Homer. The struggles of the pupils to devise outlines for the many new and strange words and their fruitless endeavors to translate their notes were pitiful.

e) Fitting shorthand to the English language deserves attention. To illustrate: in phrasing, the word "the," which always relates, grammatically, to the following word, is almost invariably joined to the preceding word. There is no good reason for this. No time is saved and legibility is diminished by all such violations of grammatical phraseology. Proper recognition of the philological relation of the different parts of words, and the grammatical relation of words to each other, would bring about a great deal of improvement in shorthand without sacrificing a single necessary principle of speed or legibility. This objection is common to all systems.

f) Imaginary "short cuts" should be discarded. A single illustration will suffice. A dot may be written much more quickly than a disjoined stroke like that for the ending "-ing." It is, therefore, concluded that the "-ing" dot is the quicker, hence nearly all teachers and Pitmanic textbooks recommend the dot whenever "-ing" is final in a word. A careful test will prove that the joined "-ing" in the word "coming" can be written from 10 to 20 per cent. more quickly than by using the disjoined dot. The explanation is simple. The lifting of the pen requires more time than the writing of either the stroke or the dot. Many similar objectionable features might be eliminated from every system of shorthand.

g) The number of words and phrases for which contracted outlines may be used to advantage and the method of teaching the word and phrase signs should have careful attention. A wide difference of opinion exists in regard to these matters. An abbreviated outline for a word or phrase becomes a real hindrance to speed unless it is one which occurs with sufficient frequency to enable the average stenographer to recall instantly the proper contraction. One which does not occur with sufficient frequency to enable the stenographer to recall the contraction without the least hesitation will cause a loss of more time trying to recall it than it would take to write the entire outline several times. I believe Benn Pitman has the best judgment as to what words and phrases may best be represented by contractions. He gives considerably less than a thousand such signs. The good teacher will be conservative in this matter and not attempt to have his students learn long lists of abbreviations many of which will be a real hindrance rather than a help.

The best method of learning the word signs is to introduce a very few in each lesson, those being selected which are based upon the principle being studied. The student should fix these in mind by writing them over and over again in natural sentences illustrating the use of the principle given in the lesson.

h) The teacher should recognize human limitations. Many teachers expect too much from students. They do not understand the average student's limited natural endowments, as well as lack of adequate preparation, and failure to receive any help in the home.

III. MAINTAINING THE INTEREST OF THE STUDENT

The average teacher of shorthand neglects this very important part of his work. The peculiar nature of shorthand makes very important the work of maintaining the continuous interest of the student until the end is reached. The following are some of the methods which may be utilized:

a) Frequently relating interesting stories of what has been accomplished by young men or women who have mastered the art. A teacher can readily recall numerous instances in which some ordinary young man or woman has stuck to his shorthand through all kinds of discouragements and has in the end made a brilliant success. Current history is full of interesting stories of this kind and the proper telling of them will prove a powerful incentive to students.

b) Do not emphasize too strongly criticisms of pupils' errors. Do not overlook errors, but give more attention to and say more in commendation of what the student has done correctly. If the student is judiciously praised for everything that he writes correctly, the little that may be necessary to say about his errors is not likely to discourage him.

c) Appealing to one's pride has a powerful influence over the average student. The same idea may be applied by making the student feel ashamed to fall behind and give up while his classmates are going ahead successfully.

d) Offering prizes is another method by which the interest of the pupil may be maintained. Usually offering a very simple prize has a marked effect. It is often possible by this means to induce a student to do twice as much work.

IV. HOW BEST TO DEVELOP SPEED

The old saw, "practice makes perfect" is altogether too general and too meaningless a term. How to practice, what to practice upon, when to begin speed practice, how long to practice at a time, and whether to write the same matter over and over again or whether to write new matter continually, are questions deserving the attention of every teacher.

a) How to practice. Practice work should be just as nearly as possible like actual work. Always practice from dictation. The wise teacher insists that his pupils write all their exercises from hearing the words spoken that the ear may be trained to hear every word distinctly and the mind trained to formulate the proper outlines as the words are heard and instantly to form pictures of them for the hand to copy. These operations should be developed simultaneously that each may be carried on at the same time at high speed. This can be accomplished only by writing what one hears and not by copying. The student who cannot have somebody dictate to him should always speak each word aloud as he writes it. He will, by so doing, become a better reporter.

b) While learning a principle, practice matter should consist of simple sentences containing many words involving the application of that principle. These should be given to the student in great abundance and written over and over again. General speed practice should never be undertaken until after the principles have all been thoroly learned and carefully reviewed. Material which will enable one to develop a voluminous shorthand vocabulary should be used at first. Following this, material as nearly as possible like the matter the student will have to write in an office should be selected. The large majority of shorthand students become amanuenses in business and professional offices and their work is principally letter writing. Therefore letter writing is the most suitable material for practice work. Better still if the student is given actual business letters for practice. Some teachers of shorthand make it a part of their business as teachers to handle the correspondence of some business firm for this especial purpose. The student will derive more benefit from writing a hundred such letters than from writing a thousand letters which he knows will go into the waste basket.

c) When to begin speed practice. It should begin with the very first lesson. The first exercise should consist of words involving only the use of the principles introduced. The student should first learn how to write such words correctly and then write them at dictation many hundreds of times. There are three distinct advantages in this:

(1) It is the best way firmly to fix the principle in mind.

(2) It thoroly overcomes the student's tendency to form the habit of drawing his characters.

(3) It develops speed at the start.

The student who does this from the beginning always finds that the time necessary to acquire a working speed is reduced about seventy-five per cent.

d) It is far better to write an article many hundreds of times or until it can be written with absolute accuracy and neatly at a high rate of speed than to write hundreds of articles each one time. The explanation of this is simple. In writing new matter one is continually hesitating while he formulates outlines for unfamiliar words. This acts as a distinct clog to the necessary harmonious development of the ability to receive a continuous volume of words, to formulate proper outlines for each one, to produce a mental picture of each, and to record that picture on paper. The only way that these various processes can be uniformly developed and the faculties trained to work in perfect harmony and rapidly is to do work under such conditions that there will be nothing to interfere in the operation of any of them, and to do it over and over again.

V. THE ACQUISITION OF A LARGE SHORTHAND VOCABULARY

a) Its importance cannot be overestimated. The more extended the student's knowledge of shorthand outlines and familiarity with the use of them, the more readily will he be able to do all kinds of reporting work and the more rapid will be his advancement. The teacher should thoroly understand this and see that the student have at the proper time such exercises for practice as will increase his vocabulary of shorthand outlines as much as possible. Usually the better plan is to make selections for practice for this particular purpose from a great variety of dictation material—scientific, historical, legal, medical, commercial, etc. The student should practice on such articles slowly at first, until he is capable of writing them correctly and rapidly.

b) Such practice is especially valuable as it increases one's shorthand power in every way. It develops ability to decide instantly and without a moment's hesitation upon outlines for new words.

c) Such practice also increases the student's translating power and as such it is especially valuable.

VI. TRAINING THE PUPIL TO READ SHORTHAND RAPIDLY

More students fail in shorthand because of inability to read their notes rapidly, or at all, than from all other causes. This may be accounted for in several ways.

a) Lack of knowledge of words is one of the chief causes. The limited English vocabulary of most young people is something appalling. If the stenographer does not understand the meaning of a word the chances are that he will not hear the word correctly or not write the proper outline for it.

b) Inability to get it all down. This is due to lack of sufficient speed practice. The only remedy is for the teacher to insist that the pupil be kept at speed practice until he is able fully to meet necessary requirements.

c) Failure to apply the principles correctly. One of the greatest troubles the average teacher of shorthand has to contend with is the failure of pupils to apply principles correctly. They do not realize that in actual reporting they will make the same errors. Unless the teacher insists constantly that all students be painstaking and accurate, serious trouble is sure to follow.

d) Another important source of trouble in translating is failure to make use of the context. Exercises especially prepared to give the student drill in the use of the context should be used freely. The pupil's attention should be frequently called to the benefit which may be derived by constantly considering the relation of the words to the thought which is being expressed.

e) Ability of the student to concentrate his mind upon his work. Failure to do so means poor writing. Poor translations are sure to follow. To overcome mind-wandering is an important part of the work of shorthand teachers.

f) Few teachers give sufficient practice in reading shorthand notes. Most teachers seem to think that the all important thing is to "get it all down." The idea prevails quite generally that if a person can write a thing, he can read it. This does not follow at all in shorthand. The teacher should remember that it requires an entirely different mental process to recall the word from a shorthand outline from that required to recall the shorthand outline upon hearing the word. One must have training in reading as well as in writing. The one requires quite as much training as the other. The teacher should see to it that the student make it a practice, and adhere to it rigidly, to read over at least once (twice would be a great deal better) every outline he writes. The student who does this faithfully will read his shorthand notes accurately and quite as readily as he writes them. The teacher should make it a part of his daily work to overcome the inability of his students to read their notes. If he does so his pupils will accomplish a great deal more in a given time and will become far better stenographers.

TO WHAT EXTENT MAY A COMMERCIAL AND INDUSTRIAL TRAINING BE PROPERLY INCLUDED IN THE GRAMMAR-SCHOOL COURSE?

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Considering the crowded condition of the grammar-school curriculum, any discussion looking to still further additions to it might seem useless. To those of us who believe in the doctrine that public schools should supply that kind of instruction which is most helpful and of the largest practical use to the greatest number, the situation does not seem so difficult, because we have recourse to the privilege of selection and elimination. Most of us, I think, who believe in this doctrine feel that there might be some changes made in our present curriculum without loss to anyone.

The finishing school for many.—The grammar school is the finishing school for over 70 per cent. of those who have advanced beyond primary instruction. Seven out of ten are not able to go on to secure the more advanced training of the high school. They have received just enough education to be something better than mere manualists in the world's work, but not enough to take advantage of the larger opportunities that will come to them.

The ideal education is the one that best prepares the boy or girl to meet the conditions of his or her environment. The best education for this 70 per cent. is utilitarian first, and cultural afterward, because the most pressing problems of environment have to do with earning a respectable living, and with the supplying of creature necessities and comforts.

Worthy manhood and womanhood and good citizenship rest upon honorable self-support. It would be difficult to conceive of a self-supporting member of society who is not to some extent a commercialist or an industrialist.

The rights of the majority.—It would seem that no argument is necessary, in view of what has been said, to justify our claim that more attention should be given to those studies which will be useful for these seven out of ten. No matter what our own opinions may be as to what should be included in the grammar-school course, we must give heed to the pleadings of these young people who say to us in effect, "We are not able to go on to high school; we must go to work. We want you to give us that training in the last years of our school life which will best fit us to meet the problems and requirements of the new life—the life of labor and of self-support upon which we are about to enter. This is our necessity. We want the state to do this for us so that we can return to the state the largest measure of usefulness in being productive factors in its support, and in securing for ourselves and those depending upon us the largest degree of comfort and of happiness and of contentment."

This, my friends, is the proposition that is before us. The rights of this 70 per cent. who are hedged about by circumstances that limit their opportunities place upon us, as educators, a responsibility which, I am free to assert, has not always been met in the spirit in which it should have been met.

We know that in the last two years of the grammar school we have only so many school days of so many hours, into which we can put only a certain amount of work. This time is now fully occupied, so there must be some cutting out and paring down to make room for that which we believe should go in. I shall not attempt to point out what should be cut and pared. Opinions will differ as to that; but in any event it is a simple process of elimination and substitution.

This brings me to the main inquiry of my subject. *To what extent* may commercial and industrial training be properly included in the grammar-school course? I think it is a fair and sound general proposition to assert that this training, if included at all, should be included to such an extent that each pupil will get a sufficient amount of the particular special training he needs most to make it of practical value to him after he leaves school.

Efficiency for the workers.—Labor is of two kinds—manual and intellectual. There may be, and there usually is, a combination of these two, the manual predominating in some instances, the intellectual in others. The service of the manualist becomes much more valuable to himself and to others if it is supplemented and directed by an intelligent mind, whereas intellect accomplishes little unless it has the supple body and dexterous hand to give expression to its activities. It is the combination of a well trained mind and a well-trained body that promises the largest efficiency for the individual; and it is from those studies which will contribute most in the least time toward this combination that we must draw for the benefits we have in view.

Commercial and industrial are in many respects synonymous terms in the sense in which they are used in this connection, the latter referring specifically to manufacture—to creation; the former to marketing—to exchange. Taken together, they cover pretty much everything that pertains to *doing things*—with head and hands; consequently commercial and industrial branches of learning loom up with a tremendous importance for these young people in the grammar schools who must get ready to do things with the only implements at their disposal—their heads and their hands.

Substitution not elimination.—Let us now consider some of the branches which we believe might be particularly helpful to those who must seek employment, and which might be substituted for some of the present branches without weakening the course or interfering seriously with the plans of those who desire to go on to high school.

Manual training, which may be classed as an industrial branch, has already become a fixture in most grammar-school courses, and it should be continued, especially in the direction of the manufacture of some of the more substantial and simpler forms of woodwork, and in the care and use of tools. Freehand and mechanical drawing have their place, and go hand in hand with the manual training, cultivating proportion and the creative faculty. Regular course work should be carried in both for at least one year.

Little can be done in the way of preparation for any of the trades, although it is to be regretted that manual-training work could not be carried at least far enough to reveal to the pupil what his preference in the choice of a trade might be. If it were possible to do this it would be of inestimable value to the many young people who select a trade only to find later that they have made a mistake in their choice.

The commercial group.—Of the commercial branches bookkeeping is the most important. A course in bookkeeping, including business papers and forms, with training in their preparation and use, should extend over at least one full half-year, with daily recitations. Commercial arithmetic should be allotted for the other half of the year. These two may supplant the ordinary course of arithmetic in the last year without interfering with the pupil who is preparing for high school to any appreciable extent; in fact, I am convinced that it would strengthen him in his preparation, because it would give him a considerable understanding of business and its methods, how it is transacted, the principles of exchange, and the instruments of commerce.

Bookkeeping involves arithmetic, and in a mathematical sense it is an expression of a continuous equation; but it is much more than that, and I consider that one-half year spent in a good course in elementary bookkeeping and business papers and forms, with the other half given to commercial arithmetic, would be an improvement over the usual eighth-year work in advanced arithmetic and general review.

Applied English.—Business letters and correspondence might profitably be substituted for much of the composition work found in the last grammar-school year. This substitution offers an attractive diversion from the usual grind and repetition in English, because it brings the pupil into relation with those things with which he is more or less familiar from his contact with the business life about him. This substitution I admit might detract slightly from the purely literary flavor of eighth-year English.

Some explanation of a few of the important principles and forms of contracts, with some understanding of the parties thereto, their rights and obligations, some explanation of those business papers which set up contractual relations between the parties, with especial attention given to the responsibility of indorsers to commercial paper, should be included.

The extent to which each branch may be considered has already been partly indicated in the time suggested. One-half year's instruction in bookkeeping will permit of a sufficient amount of work to fix pretty thoroly the principles of debit and credit as applied in keeping personal accounts and the ordinary real and property accounts, with a very practical understanding of business forms, the making of deposits, the keeping of a bank account, and the elementary details of business practice. The half-year's work in commercial arithmetic can be made to cover very thoroly the subjects of percentage, ratio and proportion, and practical measurements, with drills in quick and accurate calculating, which enters so much into all sorts of business problems. The instruction in business letters and correspondence is really nothing more than giving a business expression to the English work. It may be profitably interspersed throughout the regular work for one year; and the work suggested in the elements of commercial law is sufficient, if carefully selected, to advise the pupil against foolish contracts and hasty agreements which he might otherwise enter into, to his future embarrassment and loss. His manual training and drawing, running through one year, will teach him the use of his hands and of his mind in co-operation, and he will thus be much better equipped for almost any of the manual trades which he may later select as his calling.

It will be seen that the suggestions I have offered are not revolutionary in their effect upon the present grammar-school course. I believe a modified course would leave the pupil in a better position, considered from any point of view, either in his preparation for high school, or in his preparation as a wage earner, than the present course.

I am fully aware that just as it was with the introduction of the commercial branches and the commercial course into high schools, so now there will be antagonism and prejudice against even the limited introduction of the commercial and industrial branches which I have suggested. I am fully convinced that their introduction might be carried considerably further without any serious interference with the interests of the three students who want to go to high school, and with very great benefit to the seven who must go to work. Like all educational movements, however, we must be satisfied with a little at a time.

In conclusion, it is encouraging to state that already very important steps have been taken in the direction suggested in this paper. Buffalo, Baltimore, Detroit, Cleveland, and many other cities and towns, have at least part of the branches I have suggested covered in the advanced grades. In our own city of Baltimore increased benefits have accrued to between two and three thousand young people every year who have studied elementary bookkeeping; and the same is true of Buffalo. I am confident that it is only a question of a short time until substitutions such as I have suggested will become quite general, in keeping with the tendency of the times, to give due importance and consideration to everything that pertains to our commerce and our industries—those departments of our economic life which are more closely interwoven with the lives of the great mass of our people than any other.

WHAT SHOULD BE DONE TO ENCOURAGE COLLEGE EDUCATION BEYOND THE COMMERCIAL COURSE IN HIGH SCHOOLS?

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John Mason Taylor says "The object of education is fulness of life, health, vigor, joy, and efficiency." E. S. Martin, in the July *Success* magazine, says

"The chief end of parents and schools is to train children in wisdom and knowledge, that they may be able to take care of themselves." If these men are right, as we believe they are, education should be as nearly universal as possible. We all desire fulness of life, we know the value of good health. Joy is natural to the possessor of a healthy body, and there is a no more pitiable picture than a really inefficient man or woman—one who cannot make a living.

The fixed course of study which compels all students to pursue the same studies, regardless of likes and dislikes, talent or no talent, life plan or no life plan, has kept large numbers from obtaining an education.

The modern idea of fitting the educational plan to the individual instead of the individual to the educational plan will hold and educate the greater number. Ready-made clothes are cheaper, but they do not always fit. A first-class tailor can "fit" a very bad figure. This same principle applies to education. Yet some educators seem inclined to make each individual fit a certain machine.

From this point of view I shall attempt to show that a graduate of the commercial course of a high-grade high school should be admitted to college on his certificate of graduation.

In our Cleveland schools he has had the same mathematics, practically the same English and history; but takes commercial subjects instead of sciences and other languages. He is not allowed to elect a modern language. The subjects he takes have a strong educational value. Why should not they be substituted for other subjects? The commercial-course graduate will hold his own in college if he is given an opportunity.

The average pupil, on entering high school, has not yet reached an age at which he is capable of deciding for himself what his future occupation shall be. His parents frequently decide for him and place him in the course which will prepare him in the shortest time for self-support. Some of these pupils "find themselves" while in high school and wish to attend college. These should be credited for what they have done and allowed to enter college. When in college they should not be required to take exactly the same languages, and the same quantity that college-preparatory pupils take.

The college says to them: "If you have taken a certain kind of medicine and a certain quantity of it you may be admitted;" it does not care how strong and vigorous the candidate has grown on some other kind of medicine.

If the candidate is a graduate of a reputable high school, the college should so adjust itself that he may be admitted. The commercial student who thus "finds himself" and is permitted to enter college will make good and be a credit to his high school and college.

There seems to be a wholesome fear of anything practical among college faculties. From their point of view a subject that can be utilized must of necessity be of no value from an educational or cultural point of view. A language must be a dead one, and the deader it is the better it is. We can improve in other lines, but educational and cultural studies must come from the dead past in order to bear the stamp of college approval. They are not broad-minded enough to see that all human beings cannot be cast in their strictly classical mold. In refusing to be so cast, a very large number fail to receive the advantage of a college education.

We are in danger of overlooking the educational value of bookkeeping and stenography. During my eight years' experience in commercial college, and seventeen years in the Cleveland high schools, I have never, to the best of my recollection, found a student who could master all the difficult problems that are a part of bookkeeping. The following arithmetical subjects are purely a part of bookkeeping and all high-school teachers will admit the weakness of high-school graduates in them: Compound numbers and measurements; percentage and its applications; simple interest and discount; that difficult subject, annual interest; true and bank discounts; stocks and bonds—these are all practical every-day subjects of educational value, yet none of our high-school graduates have mastered them, not even those of the commercial course. We do not have the time. The speaker overcame these subjects in a district school, where Ray's *Higher Arithmetic* was epidemic every winter and he always caught the disease.

Again, friends: How many of your graduates can change a set of single-entry books to double entry; partnership to corporation; adjust interest among partners; transfer an interest-bearing note in part payment of a bill on which a trade discount is allowed, or even make a balance sheet into which all the difficulties possible have been injected, and not make a single mistake?

It has been said that "An open confession is good for the soul." The speaker has never yet been able to graduate a class in which each member is proficient in all of the above subjects. Some will do remarkably well, but none seem thoroly to understand all of them. This proves that bookkeeping is a real difficult mathematical subject of educational value. The student who is proficient in bookkeeping is capable of thinking and reasoning.

Now as to stenography: How many become really expert? Why? Because of the difficulties of a new language, which it really is, and the need of a better training in practical every-day English. Are our high-school graduates remarkable for their proficiency in punctuation, spelling, and composition? Ask the hard-headed business man who is looking for a competent young office man.

These are subjects that call for hard work and careful study.

The commercial-course graduate has a real practical tool in his hands which will enable him successfully to complete his college course. Stenography and typewriting are especially helpful. He is a product, when graduated, that is ready for the market.

Until a few years ago a high school was a college-preparatory school. If we are to prepare for college at public expense why should not the requirements be based on mental strength and training, not simply on a certain well-defined quantity of a special thing? In other words, the college holds that only certain studies educate. A student may be a giant mentally, but cannot be admitted to college because he has trained with the wrong crowd.

While I am on this particular phase of my subject I wish to say a few words in favor of allowing the commercial student to elect manual training. As a general proposition the commercial students are the ones who would be benefited most by that subject. They would be more helpful around the home of the parents and later on in life would be much better home-makers. By all means allow these pupils the right to take manual training. Education is a kind of life preparation that our country gives to its future citizens and rulers and should not be so hedged in as to prevent any one class from gaining its benefits. We were not all created free and equal, the United States Constitution to the contrary notwithstanding, and we cannot be changed and molded by educational methods so as to be similar products. So long as these educational straight jackets are inforced, the loss and waste will continue. The intelligent manufacturer has learned that which he formerly wasted has now become one of his greatest sources of income.

When are we educators going to learn this same lesson, and turn this tremendous loss into a splendid, finished, self-sustaining, and independent product?

DISCUSSION

S. R. Hoover, director of Commercial Department, West High School, Cleveland, Ohio.—We heard much yesterday of statistics wherein it was shown how small a percentage of those who enter the first grade emerge from the eighth; of these how few enter the high school; the still further decrease in the number who ever enter any college. All this is true. But let us not forget that among those who dominate the civilization of the world as leaders in matters political, literary, scientific, and commercial, the college man is very predominantly in evidence. While it is the few who complete a virile college course, it takes only a few to lead, and it is so vitally important that these few shall lead aright in the blazing of trails which the multitudes may safely follow that the value of the higher education cannot be estimated by the number who secure it but by the things for which they stand.

There remains here and there a moss-backed croaker who has no use for college training, but he is such a rara avis that he can very properly be classed as a mere antique. The college man has become the leader in the business world. It becomes a pertinent question if it shuts its gates, holds up its hands, and calls a halt against those students who reach it by any other road than the one from which most others have been admitted, what the college is for? With its laboratories, museums, libraries, and other expensive equipment does it meet the measure of its duties if those who knock at its gates are denied admission because, forsooth, they happen to have reached their present state of development and inquiry without a knowledge of Latin or Greek?

On the one extreme is the college which shouts "impossible" to the ambitious commercial student because a hard and fast, iron-clad "course" is laid down and he has the misfortune not to fit exactly into the first cogs of the wheels which compose it. On the other is the institution which makes the whole curriculum an elective "go as you please," and is humiliated by the necessity of turning out graduates who have picked out just enough of the easy subjects to make the minimum of passing units. One is too narrow and the other too broad. A system of elective groups by semesters, each containing opportunity for reasonable selection yet requiring the pursuit of such combinations as would involve approximately an equal result in culture from all, would obviate both of these difficulties.

There was a time within the memory of most of those present when the pupil who was too weak for any other course or failed somewhere else was shifted to the commercial course because "anybody could pass in that course." But that time is no more. The commercial course has been enriched and strengthened until the pupil who has taken it is crowding the classical and scientific pupil tremendously for the commencement program and the valedictory—and he is taking them oftener than his turn comes. He is worth a place in the college, and when he desires that place the college must give it to him. The same system of grouping electives in the high-school course as suggested for the college will go a long way toward clearing the fog that has surrounded us. We are to serve all the people, both those who may find themselves able to go to higher institutions and those who are under the necessity of going to work at an earlier or later date in their course. Both pay their taxes, and we must neglect neither.

PREPARATION AND IMPROVEMENT OF COMMERCIAL TEACHERS

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At the meeting of the Department of Business Education in 1901 a committee was authorized, to which was later assigned the task of preparing a monograph on commercial education in the American public schools. After numerous meetings and discussions the report of this committee took the form of a suggested curriculum for public high schools, with a discussion on the educational value of the several subjects of this curriculum.

The report above mentioned was presented in tolerably complete form at the 1903 meeting of this Department, and the committee was further directed to proceed with its completion and publication. The report was later brought out as a monograph by the University of the State of New York at Albany, and it is fair to say that this monograph has had a wide circulation, and that it has served a useful purpose in establishing sound notions on commercial education in high schools.

But no sooner was the monograph on commercial studies completed than there was an obvious necessity of doing something more definite to aid in the preparation and improvement of the teachers of commercial subjects, and at the 1905 meeting of this Department a resolution was adopted as follows:

> We look upon the preparation of teachers for commercial schools and departments as a pressing problem of commercial education, and we commend this question to our higher schools of commerce and university schools of education, to our normal schools and to further consideration by this body.

At the same meeting a committee on the preparation of commercial teachers was appointed, and this committee was empowered to add to its numbers, and was directed to make a study of the whole question, and to report back to the Department.

The failure to hold a meeting in 1906 delayed somewhat the discussion on the preparation of commercial teachers, but at Los Angeles, in 1907, it was made the main topic of discussion, and it is being further considered in 1908. It is the hope of the committee that, at an early date, a well-rounded study may be made ready for publication.

The needs for such a study as is proposed are obvious. From every side are evidences of a deep concern in the professional equipment and continuing improvement of teachers, and at the present time other departments of this association are devoting themselves to a topic very similar to that here being discussed.

Some of us have had the duty of selecting teachers of commercial subjects in our own schools, and it is not an unusual experience to be requested to suggest eligible persons for vacancies elsewhere, and we all know how difficult it is to name someone who seems to have the proper preceding preparation and in whom we have confidence. The rapidity with which commercial schools and courses have been inaugurated threatens a teacher-famine and should give much concern. If capable teachers are not secured for commercial subjects their introduction into the public high school is a mistake. There is nothing in the subject matter of commercial education which will prevent incompetent and unsympathetic teachers from making a failure of an enterprise for which they have neither aptitude nor inclination.

Up to the present the ranks of commercial teachers in high schools have been recruited mainly from private business schools. Similarly, commercial high schools, at the first, adopted the textbooks and methods of private schools; but these were in many particulars illy suited for the ends to be attained or the means used to accomplish these ends, and later the textbooks have been modified so as to furnish a body of material for instruction purposes which is suited to the aims and methods of work in high schools. It is no criticism upon the private schools to say that teachers who may be well suited for work in them may not be suited for service in the high schools. By almost common agreement, those who have made a study of the preparation of teachers for high schools have held that those who serve in these schools should have at least a college education. This standard is none too high, and a commercial high school cannot afford to fall below it. Not that there is any mysterious power in the college education, but that it represents the breadth of view, the outlook, and the educational sympathy which should be possessed by one who has to train young people through the four years of a high-school course. The private schools are almost exclusively practical and the work in them is sure to be mechanical; high schools are primarily academic and whenever practical studies find a place in them there is need of a breadth of view in the teaching than can come only from a liberal education of the teacher. It must be granted that some private-school teachers without a college education, who have come into positions as commercial teachers in high schools, have done well. They have "sized up" to the educational meaning of the work and have fitted into the scheme being carried out; but a somewhat extended observation leads to the conviction that private-school teachers, as a class, do not satisfactorily meet the requirements of high-school positions.

Two observations should be made at this point. Private-school teachers show much desire to get into the public high schools and they have been thus far almost the only source of supply. In general public high schools pay better salaries, they require fewer hours in the teaching day, offer longer vacations, and more secure tenure of office than do private schools. It is not strange then that private-school teachers have so largely secured places with the public schools as seriously to cripple the private schools. If one sets for himself the standard that commercial teachers are to be college graduates, he limits his choice to a very few persons. The writer has been made aware of this repeatedly in the last ten years, but never more so than when a principal of a normal school, which is to inaugurate a course for the preparation of commercial teachers, recently requested, as a directing head, a college graduate who had an acquaintance with technical business subjects. Within the past year requests have been made twenty times at least to name a man of this sort, in most cases at salaries from $1,500 to $1,800 a year, and there are almost no men to meet the requirement. At the same time numbers of good men are seeking position as teachers in the old-line subjects. If it were not for some striking exceptions one might almost proclaim that the liberal training and the technical commercial studies are as impossible of being united as are the traditional oil and water, and yet there is nothing in the nature of the subjects that should make this true. More regard for the real needs of those being educated, better appreciation of their own interests on the part of prospective teachers, and a correction of the false notion of the dignity and importance of commercial subjects: these and other influences are sure to operate in changing present conditions.

One error has carefully to be guarded against; namely, that because one knows a subject he is thereby qualified to teach it. Of course one cannot teach a subject without knowing it; but knowing a subject is no guarantee of an ability to teach it. One familiar with a foreign tongue is not necessarily a good instructor in that tongue as is evidenced by the unsatisfactory experience in American high schools with native teachers of French and German. It would be a strange educational doctrine that one who knew English is perforce qualified to teach this language. But the statement is no more false than is the one that a carpenter is prepared to teach woodwork or a blacksmith forge-practice in a manual training high school; or that a bookkeeper is prepared to teach bookkeeping or a stenographer shorthand writing in a commercial high school. There are fundamental laws of these subjects which should be understood by those who are to guide others in the attempts at their mastery, and equally important, there is a necessary knowledge of the one being taught if the instruction is to be most effective.

It is not possible to escape from the necessity of preparing and improving commercial teachers by seeking refuge in the fallacy that "teachers are born and not made." The United States Commissioner of Education has come nearer to the truth in a statement that teachers are both born and made and that above all else they must be discovered. What commercial education particularly needs at the present time is provision for the preliminary preparation of commercial teachers and some well-thought-out plans for the improvement of those already at work.

The ideal is obvious, first, as broad an academic training as possible; a general college course first, with special preparation afterward both in the technical subject-matter and the methodology of presentation is not too much. Higher schools of commerce that parallel the traditional college course would also seem a good preparation. Many studies in the higher commercial schools are the same as are those presented in more elementary form in high schools, and the studying of these in the advanced institutions gives much in suggestion for their presentation in the secondary schools; but the plea for college education, whether college of commerce or otherwise, is not alone for subject-matter. The college course gives a general "setting up" which is desirable for one who is to stand for high ideals in secondary schools.

What seems a second indispensable qualification is a familiarity with practical matters and an acquaintance with men of affairs. The one who looks forward to a commercial teachership should travel as widely as possible and know at first-hand the conditions and life in and products of different sections of his own country and some of the other principal countries of the world. Then the commercial teacher should have had experience with practical business matters. He should be willing to serve gratuitously as an employee, and, if need, be to pay for the privilege of getting behind the scenes and learning how business is carried on; and a man trained and alert, who knows what he wants, will be prompt at learning the practical aspects of business. Not only might the one making his preparation for a teaching position use his vacations for gaining insight into business, but those actually engaged in teaching might also do this with profit.

A desirable course to be followed in connection with or supplementary to that mentioned above is found in studies in education and the art of teaching either in universities, normal schools, or other institutions now turning their attention to this matter. Schools of the sort just mentioned have demonstrated their right to be, and commercial studies cannot afford to remain an exception to the range of training which they supply. Evidences are not wanting that schools of education are giving themselves to a new regard for practical studies; some normal schools have announced departments for preparing commercial teachers, and have gone to the extent of introducing technical courses for training in the subject-matter for such studies as bookkeeping and shorthand. Some of the private institutes and certain of the normal schools have announced short courses of one year which are designed to give professional finish and which are opened only to mature persons who are prepared to profit by them. Thus, in the present tendencies, there is much to give heart and hope as we consider the means of preparing the commercial teachers of the future.

One serious obstacle is the absence of a literature bearing directly on commercial education. There is next to nothing on the pedagogy of commercial studies and yet this is a profitable and suggestive field for those who look to teaching such subjects; but with the obvious need for such treatises, and with the demand for them in the normal schools and special courses of other institutions, the professional treatment of commercial subjects will soon be forthcoming.

It remains to speak of the need of continued education for commercial teachers and to suggest some of the ways in which this can be furnished. A recent writer makes a statement, which our observation will likely confirm, that quite 80 per cent. of those who go into teaching do not continue with any systematic study or reading. Reading circles, study classes, graded promotions dependent upon examinations, these and other devices are utilized to stimulate teachers. All these seem necessary under different conditions and are surely worthy if they result in teachers continuing to improve their preparation.

While the above statements of the need for continued study are true of teachers in general, they are particularly true of commercial teachers. Those in the old-line subjects have a tolerably well fixed subject-matter of instruction; those teaching practical subjects have a constantly changing material and the necessity is laid upon them, if their instruction is not to fail, that they keep abreast with the changes constantly taking place. Practical textbooks well illustrate what is here meant. Some of them are no sooner prepared and printed than they are out of date and need to be superseded by others. The necessity of the commercial teacher being a student is well illustrated by the experiences of Alice when she went to that strange country which lies Through the Looking-Glass. On one occasion the queen of that land told Alice that they were to run. Alice put down her head and ran very long and very hard, and after thus running she looked up and saw that she had all the while been under the same tree. She then protested against running any more, on the ground that they were not getting anywhere, but she was promptly informed by the queen that in her country it was necessary to run as hard as one could in order to keep in the same place. So it seems a commercial teacher should be everlastingly digging if he is to keep pace with the progress of the subjects he is to impart.

Already the suggestion has been made of travel and practical experience as a means of improvement of teachers. Vacation courses, summer schools, etc., are also to be strongly commended. One of the wisest and most successful of the private commercial school proprietors in the present generation so highly appreciates this fact that he conducts, at his own expense, a summer institute which his teachers attend, and the information is at hand that he pays salaries to his teachers while they are thus in attendance. We should expect this to be a profitable investment on the part of the proprietor

There is much to commend in the commercial teachers' summer school recently started, and in the various courses for commercial teachers introduced into the summer schools of some of the colleges and universities. Observation on the success of these enterprises, however, leads one to say that commercial teachers have not responded as promptly or as largely as they should have done. Either they have not realized the need or are not aware of their opportunities; otherwise the few summer courses would be overflowing with numbers.

Correspondence schools are not without value, and to those who feel the need of stimulation and instruction they may serve a useful purpose. Several reputable institutions are now offering opportunities to do work by correspondence, and when this is carried forward in connection with attendance on the summer school of the same institutions, very desirable results may be attained.

The correspondence course and the summer school open a way for the supposed academic distinction of a degree, and some persons, well termed "degree hunters," pursue these courses in the hope that they may thus find a short and easy road to the coveted end of a degree. Degrees are thus sometimes sought for the professional or financial preferment which they are supposed to bring, but degrees in themselves mean nothing; what is vastly more important is substantial work, and such work is more certain of its reward and appreciation than is any empty degree.

Not the least important of the ways in which continued education can be carried on is the systematic and well directed reading of the teacher. *The World's Work* and *The Review of Reviews* offer valuable material; good newspapers form different sections of the United States and abroad are also to be commended. A representative list would include such papers as the weekly editions of *The Springfield Republican*, and *The Portland Oregonian*; and the Saturday editions of *The New York Evening Post*, and *The Boston Transcript;* and the weekly editions of *The London Times* and *The London Commercial*. Articles of much value appear in all of these papers and the reading of them tends to broaden the teacher's knowledge and keep him up to date.

It goes without saying that in addition to the magazines and papers here mentioned a commercial teacher should read from time to time books which make contributions to his own special subject of instruction, the broader treatments of his field of education and works of more general cultural and literary character.

The preceding statements are made with the desire to avoid scoldings of commercial teachers on the one hand or preaching to them on the other, but in the hope that attention may be called to obvious tendencies and some practical suggestions offered toward raising the standard for those who are to go into commercial education, and to render more efficient those who are already in service. With this accomplished, teachers and school administrators will be happier and the young people whom they serve will be great gainers.

DISCUSSION

EDWARD RYNEARSON, director of High Schools, Pittsburg, Pa.—If 85 per cent. of the equipment of the school rests in the teacher we cannot emphasize too much the subject of Dr. Herrick's excellent paper. The need everywhere, no less in schools than in business, is for men and women of scholarship, of power, of faith; men and women who have aims, who have foresight as to results, and who know how to secure results. Hence the range as well as the quality of the education of every person who presents himself as a candidate for a teacher's position is an important factor to those who select.

Most of you are better prepared than I to say definitely what is the best preparation for commercial teachers. I am sure that all grades of our schools in this country, from the kindergarten through the secondary schools, are suffering from either too little preparation on the part of the teacher or that the teachers, if specialists, have not seen their respective subjects in the proper perspective. As Dr. Herrick says, the standard for a teacher in our schools of commerce cannot be too high. Men often fail to meet the requirements of their positions when unexpected complications arise because they work mechanically. The test of every teacher is: "Can he teach the child?" not "Can he develop the subject?" The systematic study, the contact with master minds, the association with the best young people in college offer great advantages to the future teacher. It is with the teacher as with the business man, the wider the horizon the greater the likelihood of success.

The colleges that have their ears to the ground are offering courses for those who wish to prepare themselves to teach in secondary schools. A person who expects to teach in schools of commerce must not be satisfied with a four-month term of bookkeeping in some private school. He should avail himself of the high-school training, followed by a four-year course in commerce as is found in many of our best colleges.

The teacher who comes before his classes with a fresh bit of knowledge, from day to day, has solved most of the difficulties of discipline. Decline in a teacher's efficiency begins when the study of subject matter and educational problems ends. We must know much more than we teach. We can't teach all we know.

Scholarship and habits of study are essential factors for efficiency in every teacher who continually increases his usefulness through two or three decades of service. The teacher who yields the best and the most powerful influence in the school and in the community at large is he who takes time not only for the thoro preparation of his daily work, for studying professional philosophy, but also for some special interest from which he broadens his sympathies and deepens his culture.

The more efficient the teacher, the more his services have cost him and will continue to cost so long as he improves himself. The school that secures him is securing so much energy, health, mind, and enthusiasm. No one can measure the success of the teacher in terms of the business man. The public raises or lowers the standard of teachers and schools in a community by the scale of wages paid. On the other hand, greater efficiency and superior qualifications in teachers will go far to call out from the public a better appreciation of the value of their work. Do we not make a mistake in attributing the deficiencies of the teachers to the low rate of wages? Is not the converse usually true: the low rate of wages is caused by the deficiencies of the teachers?

The schedule of salaries should be so constructed that a premium is placed upon efficiency in the classroom and growth in professional and general culture rather than upon length of service alone. The introduction of this merit plan of increase of salary will meet with much dissatisfaction from teachers who have ceased to study and to keep abreast with the pedagogical progress of the past quarter of a century. It is possible to formulate a plan by which efficient teachers can be promoted faster than the inefficient who are a little too good to drop and not good enough to promote, and who receive all the pay that their services are worth. The salaries paid for instructors should be such that some of the best business men will be attracted to our high schools.

Promotion by test is the only way to secure efficiency in a corps of teachers. Any adequate test of efficiency must include investigation of—

1. The teacher's personal qualifications, character, health, manners, habits, love for the young, adaptability, tact and loyalty to his principal, his school, his fellow-teachers and the teaching profession.
2. His *theoretical* knowledge of the art and the method of teaching, and
3. His actual *experience* as a successful teacher.

Nothing less than all these can furnish an adequate test of fitness for promotion. A schedule of salaries based upon years of service levels the highest efficiency to the grade of the lowest efficiency. The merit promotion does the opposite. The merit promotion accomplishes the advancement of the teachers who deserve advancement without wronging others who, while doing fair work, have not shown that interest in it or effort to attain the excellence that has characterized the others. Would not the merit plan of promotion encourage many enthusiastic, capable young men and women to enter the profession of teaching? The professional pulse is weak when teachers descend to the formation of organizations that champion the cause of those who cannot stand on their own merits Promotion should be merited; any other is a dishonest basis.

METHODS OF PREPARING TEACHERS FOR COMMERCIAL SCHOOLS IN GERMANY

CHARLES DE GARMO, PROFESSOR OF THE SCIENCE AND ART OF EDUCATION
CORNELL UNIVERSITY, ITHACA, N. Y.

Germany is in a social and economic position to secure as teachers an adequate number of men with any degree of general and professional preparation she sees fit to impose. The fact that she can do this arises from several conditions that do not obtain in this country. In the first place, practically all higher education in that country is professional in character, the leading professions being law, divinity, medicine, teaching, civil service and the various branches of technology. If a man goes through the long arduous course of training and practice necessary to qualify for one of these callings, he finds it unnatural and impracticable to undertake anything else. It is out of the question to change professions, while he and his friends would regard it as a loss of caste to descend to any non-professional occupation. But the number of men any given profession can absorb is in direct ratio to population. At this point Germany is confronted with the condition which makes it so easy for society to get men, and so hard for men to meet the requirements for entrance to the higher callings. During the last thirty years, owing to universal industrial prosperity and the advancing tide of democracy, the number of students in universities, and doubtless likewise in all higher technical institutions, has grown twice as fast as the population. In these higher callings as a whole, therefore, there are two men for every position. Now, unless there can be, as in this country, an easy transfer of men from one occupation to another, such a condition can only be met by lengthening the period of preparation and shortening that of service. It is in this latter way that Germany is meeting the situation, and this is the explanation why Germany can get any degree of preparation she sees fit to ask for, while we must put up with what we can get.

When I asked the director of the Continuation Schools at Halle what qualifications were necessary in order to teach in them, he replied that candidates must first qualify as regular teachers, whether elementary or secondary, and then go out and learn practically the business for which they wished to train students. According to the reports of the German Association for Commercial Instruction, there has been much difference of opinion as to the qualifications of commercial teachers in continuation schools. Some have wanted successful merchants; but this demand has been met by the difficulty that the born merchant does not often prove to be a born teacher and certainly does not usually desire to abandon a profitable calling for one that will furnish him at best but a bare subsistence. Others think that a normal-school training is inadequate to produce that free, far-seeing personality so necessary to commercial leadership. But the Report for 1905[1] says that the general conclusions that follow from the discussions are as follows:

1. That demonstrated fitness to teach commercial subjects, not prescribed technical preparation, shall be the accepted test as to a man's natural gifts and technical skill.
2. That the leader of a commercial continuation school—whether a "born" or a "made" teacher—must be a cultured and stimulating personality.
3. That though the road shall not be barred to any who have demonstrated their ability to teach, the man who would lead a commercial continuation school must, as regards mastery of all obligatory subjects, sit firm in the saddle.

The association is of the opinion that this method of trying out ambitious candidates has produced a more energetic and efficient body of commercial teachers and leaders than could have been supplied by any prescribed formal technical preparation, however rigorous.

The general scholastic qualifications of any class of certificated teachers in Germany are quite adequate to any demands that continuation schools can make upon them, for the pupils of these schools come wholly from the ranks of elementary education, and since the required attendance is only some six hours a week for three years, there can be no considerable advance into the domain of general secondary scholarship. The case is different, however, when we come to the middle and higher departments of commercial training, for here the student is devoting all his time for three or more years to work of regular high-school or of college grade. Moreover, his technical instruction is far more fundamental and comprehensive than is possible in the continuation schools. Then, again, even if the technical difficulties of the situation did not demand a long and arduous preparation, the social and professional standards of German enducation most certainly would. For both these classes of reasons, therefore, we find the preparation of commercial teachers for the middle and higher schools almost or quite as rigorous as for other institutions of similar rank.

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[1] Gründung Einrichtung und Verwaltung von obligatonschen Kauf-Mannischen Fortbildungsschulen, Leipzig, pp. 48–52.

The Prussian Ministerial Rescript for March 3, 1907, has the following provisions concerning the certification of commercial teachers:

THE EXAMINING COMMISSION

This commission is made up as follows:

1. A chairman named by the minister for trade and manufacture in connection with the Minister of Education.
2. The chairman of the Advisory Committee of the commercial high school.
3. All the head teachers of the commercial high school.
4. Such subordinate teachers as may be named by the chairman of the examination commission, these appointments being made a year in advance.

CONDITIONS FOR ELIGIBILITY

In order to be eligible to examination, the candidate must submit to the chairman of the commission in writing the following data:

1. An outline of his life and education, composed and written by himself.
2. If a teacher, the certificates of examinations already passed.
3. It not a teacher, his school certificates and also those pertaining to his commercial experience, the conditions being that if a graduate of a nine-class secondary school he must have had one year of commercial experience, and, if not a graduate, five years of such experience, including his years of apprenticeship.
4. Evidence of at least five semesters' study at some German institution of higher education, at least two semesters of which shall have been at the commercial high school in which his examination is to take place.
5. Written evidence of having attended the various courses of lectures and exercises, as well as proof of participation in the pedagogical seminary and of practice teaching in a commercial continuation school.

SUBJECTS TO BE EXAMINED UPON

These are as follows:

1. Business technique (bookkeeping, commercial arithmetic, and correspondence).
2. Economics, including the science of finance.
3. Law, especially that pertaining to trade in its essential relations.
4. Commercial geography.
5. English or French.

The examination is in two parts, one oral, and the other written under supervision.

THE WRITTEN EXAMINATION

This covers:

1. Business technique.
2. Economics.
3. One modern foreign language.
4. Either law or commercial geography, as the candidate may elect.

For the foreign language not more than two hours are allowed, and for the other subjects not more than four each.

A candidate who has "unsatisfactory" in two subjects is not admitted to the oral test.

ORAL EXAMINATION

The oral examination covers the following topics:

1. Business technique (bookkeeping, commercial arithmetic, and correspondence).
2. Economics, with especial reference to money, banking, and board of trade operations; and to social economy, trade, and commerce.
3. Principles of private and public rights, with special reference to departments important to commerce.
4. English or French.
5. Principles of commercial geography.

In the oral examination the student's record in the commercial high school, especially his success in the teachers' seminary and in practice teaching, are taken into consideration. In cases of doubt the commission may require a sample recitation to be conducted in their presence. The subject for the thesis which the candidate is to discuss may be chosen from either business technique or commercial geography, at his election, and is announced 24 hours before the examination. Six candidates may be examined at one time.

ELECTIVE SUBJECTS

The commission is authorized at the wish of the candidate to extend the examination to other subjects taught in the commercial high school. The manner and compass of these supplementary examinations are determined by the commission.

CONDITIONS OF PASSING, ETC.

The judgment for each branch is indicated by the examiner over his signature. The following marks are admissible:

1. With distinction.
2. Good.
3. Satisfactory.
4. Unsatisfactory.

The rank for the written work must be given separately.

The candidate has not passed if the grade "unsatisfactory" is given in two separate subjects, unless made good by other favorable marks. The extent to which such an equalization may exist is decided by a majority vote of the commission, the chairman casting the deciding vote in case of a tie.

A certificate is issued to each successful candidate which records the result of the examination as a whole and the rank attained in each subject. It is signed by the chairman and all other members of the commission.

In case of a failure to pass, no new examination can take place before six months have elapsed and only one re-examination is allowed.

The comparison between the requirements for a secondary teacher in the *Gymnasia* and for one in the commercial secondary and higher commercial school is as follows:

The minimum for the *Gymnasia* is three years in the primary schools, nine in the *Gymnasium*, three in the university, one in examinations, one in the seminary of the *Gymnasium*, and one in trial teaching—eighteen years in all.

The minimum for the commercial school is (1) in the case of teachers in the general field, the passing of the examinations for commercial teachers, which necessitates at least a year's attendance in the commercial school, and the requisite practice and pedagogical study; (2) in the case of students not teachers, attendance of regular schools until the gymnasium course or its equivalent is completed, one year of commercial practice, and then the five semesters of university work, including at least two in the commercial high school, and as before the regular commercial examinations and pedagogical study and practice.

In amount of time, and in difficulty of work required, the two teaching courses stand upon a substantial equality.

DEPARTMENT OF CHILD-STUDY

SECRETARY'S MINUTES

OFFICERS

President—William H. Burnham, professor of pedagogy, Clark University, Worcester, Mass.
Vice-President—William L. Bryan, president, Indiana University, Bloomington, Ind.
Secretary—H. Austin Aikins, professor of philosophy, Western Reserve University, Cleveland, Ohio.

FIRST SESSION.—Tuesday Afternoon, June 30, 1908

President W. H. Burnham called the department to order in Euclid Avenue Baptist Church, Cleveland, at 2:30 o'clock.

The President read an address on "The Scientific Study of Children."

John M. Tyler, professor of the Department of Biology, Amherst College, Amherst, Mass., presented a paper on "The Study of Growth in Children."

George E. Johnson, superintendent of the Playground Association, Pittsburg, spoke on "The Study of Children on the Playground."

The papers were discussed by Professor Joseph Jastrow, of the University of Wisconsin, Madison, Wis., and Dr. Winthrop T. Talbot, of Holderness, N. H.

The President appointed the following Nominating Committee:

Henry H. Goddard, Vineland, N. J.
Emma C. Davis, Cleveland, Ohio.
William F. Book, University of Montana.

SECOND SESSION.—Thursday Afternoon, July 2

A joint session with the departments of Special Education and National Organization of Women was held in Euclid Avenue Baptist Church at 2:30 o'clock.

President Burnham introduced President E. R. Johnstone, of the Department of Special Education, Vineland, N. J., who presided at the meeting.

The following papers were read:

"Physiological Age and Child Labor"—Robert W. Bruère, secretary of the New York Committee on the Physical Welfare of School Children, New York City.

"The Physical Basis of Attention"—Winthrop T. Talbot, director of the Lake School, Holderness, N. H.

"The Visiting Nurse and the Children Requiring Special Education"—Helen MacMurchy, M.D., special commissioner for the Feeble-Minded for Ontario, Canada.

"What the Regular Class Teacher Should Know of Mental and Moral Deficiency"—E. B. Sherman, superintendent of State Industrial School, Kearney, Neb.

The discussion was participated in by Maximilian P. E. Groszmann, of Plainfield, N. J.; Mrs. Florence Kelley, secretary of the Consumers' League, New York City; Miss Sadie American, executive secretary of National Council of Jewish Women, New York City; L. Pearl Boggs, of the University of Illinois, and President G. Stanley Hall, of Clark University, Worcester, Mass.

THIRD SESSION.—Thursday Evening, July 2

President Burnham called the Department to order at 8:15 o'clock.

The following papers were read:

"Recent Advances in Child-Study"—G. Stanley Hall, president of Clark University, Worcester, Mass.

"What England Is Doing to Secure Healthy School Children"—Earl Barnes, lecturer of the American Society for Extension of University Teaching, Philadelphia, Pa.

"The Study of Exceptional Children"—Charles A. J. Miller, supervising principal, Public Schools, Baltimore, Md

Miss Jane Addams, of Hull House, Chicago, spoke briefly in discussion of the paper of Professor Earl Barnes.

The Nominating Committee having reported, the following officers were elected for the ensuing year:

For *President*, George E. Johnson, superintendent of the Playground Association, Pittsburg, Pa.

For *Vice-President*, A. Caswell Ellis, associate professor of science and art of education, University of Texas, Austin, Tex.

For *Secretary*, W. G. Chambers, State Normal School, Greeley, Colo.

After closing remarks by the President, who expressed the thanks of the Department to the officers of the Euclid Avenue Baptist Church, the local committee, and the teachers and people of Cleveland for their many kindnesses, the Department adjourned.

H. AUSTIN AIKINS, *Secretary*

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

THE SCIENTIFIC STUDY OF CHILDREN

WILLIAM. H. BURNHAM, PROFESSOR OF PEDAGOGY, CLARK UNIVERSITY
WORCESTER, MASS.

The first meeting for the study of children in connection with this Association was held at the World's Congress in Chicago in 1893. In the fifteen years that have elapsed since that time the field of child-study has widened enormously.

The attempt is now made to study the child's psycho-physic organism objectively and scientifically under varying conditions just as one would study any other organism. The varying conditions under which it has been studied may be classified roughly under five heads as follows:

Variations due to growth and development.
Variations due to disease.
Variations due to changes in nutrition.
Variations due to changes of stimuli and to suggestion.
Variations due to learning.

We may group the different investigations in a similar manner. This of course is not a rigorous division, not perhaps a logical sequence; for the variations due to growth and disease are largely caused by conditions of nutrition and of stimulus. But it is sufficient for my present purpose, which is merely to sketch the briefest outline of the field and leave it for other speakers to treat some of the topics more in detail.

First, Variations due to growth and development. Most of the genetic studies come here. There have been a great variety of these from the early mass studies of physical growth by Quetelet and Bowditch and the individual studies of psychic development by Tiedemann, Preyer, Darwin, and the rest to the more concrete studies of special functions, such as Garbini's study of the development of the voice or Raehlmann's study of the development of vision.

The result of the studies thus far has been a great change of attitude toward children. Instead of looking upon the school population as made up of children of different sizes and different ages, it finds them composed of different physical and psychic types, and it finds that the individual child passes through different physical and psychic stages. Thus it is coming to be demanded that in school grading there should be considered besides scholastic attainment not only age and physical conditions as regards height, weight, and health, but also the stage of individual development, the physiological age, as it is sometimes called.

Definite and significant results of this genetic study have already been obtained showing the different physical and psychic conditions at different stages. These of course are most marked between the young child and the adult—physical difference of great significance, the grosser differences in structure and the relation of parts; the differences in the alkalinity of the blood, and according to Weil in the number of leucocytes with bactericidal power, differences in the lymph apparatus, the different type of circulatory system, the ratio of the heart to the width of the aorta in the case of the child being much less than in case of the adult; the great differences of nutrition connected with growth; the differences due to undeveloped organs, like the eye, which has not yet acquired either its structural or its functional development, etc., etc. And on the mental side, psychic differences, some of which are now being definitely determined by experiment.

Second, The important contributions that have been made in the study of disease in school children. Investigations in many countries show that from 25 to 50 per cent. of all school children are likely to be suffering from disease or from physical defect. Such children are found in every school. Their presence cannot be ignored, and the study of them is important not merely for the sake of preventing and curing disease, but also for determining what kind of work such children can do, under what conditions they can best work, and in its bearing on questions of grading, the period of study, and the like.

For a concrete illustration take the common disease, tuberculosis. It is now thought that perhaps the majority of cases of tuberculosis are contracted before the close of school life. Most of these remain latent until a later period. The presence of a large number of children with this disease in an incipient stage puts an increased emphasis on the need of cleanliness in the schoolroom and an adequate air supply; and the fact that a considerable number of cases become active during school life makes it essential that such children be taken from the regular classes and educated in a special school conducted out of doors and with special care to avoid over-exertion and the like. Such schools have already been established in Germany, and one is in successful operation in the city of Providence in this country. Now the question is raised: Why should not children who are well have the same advantages as those who are ill, and the Belgian Society of Pedotechnie urges that the experiment be tried of a school out of doors for normal children.

The result of all this has been to show definitely and emphatically that the school must reckon with this large percentage of children who are diseased and defective, and that medical inspectors, and sanitary conditions, and instruction of teachers in school hygiene and the like are as essential as an adequate teaching force and pedagogical equipment.

Third, The studies of children under different conditions of nutrition, especially the studies of the optimum conditions of brain work. A vast number of investigations bearing upon this have been made—studies of the effect upon brain activity of drugs and alcohol by Kraepelin and his students; of the weather in general by Dexter; of temperature by Lehmann and Pedersen; and the seasons of the year by Schuyten and Lobsein; of nasal breathing by Kafemann; of posture by Jones, etc. As the ability to resist fatigue is determined by the blood supply to the brain on the one hand and by the organism's ability to resist and carry off the toxic products on the other hand, the numerous studies of fatigue come under this general class. While the results of many of these studies have been discredited, one result of prime importance has been obtained, for the problem itself has been made definite and the complexity of it has been shown.

These differences of nutrition are varied and sometimes unsuspected. For example, Mr. Jones's study of the relative ability to perform intellectual work in the horizontal posture as compared with the vertical posture shows that for some processes, adding for example, the horizontal position is more favorable, apparently because in this way the nutrition of the brain is increased. Such technical studies are not so remote from the practical problems of the schoolroom as at first may appear. It is well for the teacher to know something of the complexity of the conditions of brain activity. Mr. Jones cites Sir Lauder Brunton, who relates that, driven one night after a weary day to prepare a paper, his mind refused to work. As the blood would not flow to his brain, he tried the experiment of bringing the brain down to the blood. By putting his head flat on the table, he found he could think, and he wrote his paper in this way. If Sir Lauder could do no intellectual work without dropping his head on the desk, it may on certain occasions be asking too much to require a child to sit erect while performing school work. The apparent contradiction between cerebral hygiene and somatic hygiene need not disturb us.

The result of these studies of variations in children due to nutrition has been the insight that where the essential conditions of brain nutrition are lacking, these must first of all be supplied, and that we cannot expect the brain to function efficiently if its food supply is cut off. Hence the practical significance of the studies of fatigue, of adenoids, sleep, posture, ventilation, and the rest.

Fourth, Variations due to stimulus and suggestion. These may be grouped together because suggestion may be considered as merely an indirect method of presenting a stimulus. Hence this group of variations includes all of those due to environment in the narrower sense. A great variety of studies have been made here, studies on the playground, in the home, and in the school. The school is really an organized effort to control stimuli and reactions in the interest of formal education. Especially interesting is the modern movement for studying school conditions and school methods experimentally, the movement called in Germany experimental pedagogy. This aims at studying educational methods and educational processes under controlled conditions. It is really a new name for an old method of study; for many of the important studies in experimental psychology have really been of this class.

The great advantage of this experimental method is that it brings one into close contact with all the facts connected with an educational problem or method; and just as the merit of experimental psychology is its aid to introspection, so one of the great advantages of experimental pedagogy is the fact that it gives the experimenter prevision for many conditions overlooked in ordinary school observation.

For a single illustration of the kind of investigations that have been made in this field we may take the experiments that bear on the psychology and pedagogy of questioning; and questioning I need not remind you is largely the teacher's function. A great many laboratory experiments bear upon this subject. In fact all experiments in association are related to it. In the well-known association reaction the experimenter mentions a word and the subject mentions the first word suggested to him. A great many experiments of this kind both on children and adults have now been made and the time of the association reaction accurately recorded. Thus we may say that an association experiment is an abbreviated question, asked and answered under laboratory conditions. And an ordinary question, on the other hand, is an association experiment without laboratory conditions.

Certain facts of great significance have been shown by such association experiments. First it has been shown that the association reaction time of the child is very much longer than that of the adult. While for the adult it is likely to be about two seconds, for the child it may be six or eight or even ten or twelve seconds; and further it appears that the quicker the association reaction time in children the less valuable are the answers. The practical significance of this is obvious. In questioning children haste defeats its own end. The teacher who requires as quick an answer from a child as may be expected from an adult is requiring a result that the child's associative machinery is not fitted to produce, and while teachers may succeed in getting quick answers, the result is likely to be relatively worthless.

Another class of investigations upon memory throws light on the pedagogy of questioning. Many studies have shown that errors of memory are much more frequent when a person is questioned about an event than when one writes a report spontaneously. Especially is this true in the case of children.

A question is to them a suggestion, and a mnemonic error is pretty sure to result. While some questions are much more suggestive than others, all questions perhaps should be considered as forms of suggestion. These facts throw grave suspicion on certain common methods of the classroom.

Putting together the results of these two different classes of investigations we have the following important inferences in regard to this method of school instruction. A question is an association experiment without controlled conditions. A question further is a suggestion. If one wishes a true report from memory this should be given spontaneously without interruption or questioning. If one desires to give suggestions, questions are justifiable; but they should not be used in a way to bring about erroneous ideas, as this leads to confusion and interference of association; and a quick answer is likely to be a worthless answer.

By such methods experimental pedagogy studies the concrete problems of the schoolroom, the child's ability to attend and to remember, the most economical methods of learning, etc., etc.

The most important things in a child's environment are other children and adults. A large number of special studies have concerned this social environment of the child. The studies of Schmidt and others show, for example, that a child alone is a different creature from a child in a group. The child in a group can do more work with the ergograph, he can turn a wheel more rapidly, he can remember more accurately, he can perform arithmetical operations more correctly, and in fact under the stimulus from the presence of other persons a child's performance is greater and better in almost every line, except such occupations as composing in the mother-tongue or the like, which require special individual reflection.

The more general studies by Scott and White and the movement for *Sozialpädagogik* in Europe promise to revolutionize our conception and our management of the social group we call the school. The study of social psychology has the most vital connection with pedagogy. Already it is raising pertinent questions. For example: If phylogenetically the impulse to linguistic development was the desire to describe a thing to somebody else, how, it asks, can we hope for successful linguistic training from the vapid and artificial stimulus of conversation with a private tutor?

The result of all these experimental studies and the like has been to show that pedagogical questions cannot be satisfactorily solved by a mere pooling of opinion, but that definite experiment must be resorted to in many of the concrete questions of method and in some of the large questions of management and the like.

Fifth, Variations due to learning in the narrower sense and to the self-directing power of the individual. In human evolution we have to reckon with the remarkable fact that the individual's own self-activity can modify the course of development. As soon as an individual can profit by his own experience a new factor in evolution appears. Important studies of learning in animals and in children have now been made; and yet for the most part this division of our subject represents an open field, where it is desirable that many investigations should be made, studies of the self-directing factor in the individual and studies of variations due to practice and experience.

As suggested at the outset, no definite line of division can be made between these different classes of varying conditions. Learning is determined by suggestion. Stimulus determines activity; and activity within certain limits determines nutrition; and nutrition again largely determines growth and development. Each individual will make his own classification. For a simpler scheme we might divide the scientific studies of children into two large classes: first, those that have had to do with physical activity, and physical development, and physical health; second, those that have to do with mental activity, and mental development, and mental health. Some of these investigations will be illustrated in our program more in detail. The importance of the studies that concern physical development and physical health is now pretty well recognized. In school hygiene a rich literature has accumulated in the last fifteen years. The general interest is shown by the associations and international congresses abroad; and in this country by the American School Hygiene Association, and its periodical, *School Hygiene.*

The special result of all this study is a changed attitude. On the one hand, the attitude of science toward the child as the highest and latest product of evolution, not only reminiscent but prophetic; on the other hand, the attitude of the teacher, who has learned anew from child-study the lessons of infinite patience with the slow processes of development, the significance of individuality, respect for personality, the relative worthlessness of any scholastic product, the infinite value of the healthy child. The past of child-study is already significant. Its future is promising.

Its problems center around the five things I have mentioned: the mystery of growth and development, the tragic changes of disease and degeneration, the far-reaching changes effected by nutrition, the effect of environment in the narrower sense—stimulus and suggestion—and, finally, the power of learning in the narrower sense of self-direction and of profiting by one's own experience.

THE STUDY OF GROWTH IN CHILDREN

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Education is far older than man. Mammals and birds train their young. Long ago Nature framed and enacted her system of compulsory education. The aim of this system is survival and progress; power, efficiency, and fulness of life. Nature's first and chief means of education is the home and family. School and college are mainly artificial devices to make good the deficiencies of home and early surroundings and to prepare for the fuller education of life. What the home cannot do the school must.

A century ago home and farm could furnish physical and manual training and nature-study; could train children to industry, economy, endurance, ingenuity, to forethought and responsibility. The chief business of the school was to give the knowledge of books which the home could not furnish.

Now old-fashioned farm life has disappeared, and its valuable training has been lost; the educational efficiency of the home has been narrowed and weakened. Hence the responsibility and burdens of the school have been vastly increased. It must develop a race of men and women who can meet the emergencies and endure the nervous strain of modern sedentary life in town and city. This is no small nor easy problem. School and college must be institutions not merely of learning, but of physical and moral vigor, of efficiency and power. They must develop as well as instruct and discipline. The school must furnish a tough, vigorous body as well as a keenly disciplined mind.

We all recognize that health and growth are the main business of the baby and the child. How big a man's life and power shall be depends primarily on how fast and how far he can grow. The chief business of the home and the lower grades of the school is to promote growth, not learning or mental discipline. Healthy growth in the child is to be promoted by the use of the muscles rather than through mental training, though this also is important. When the child runs and plays, he is increasing his appetite for food, enlarging the lungs, strengthening the heart, and stimulating the growth of all his vital organs. On the growth and development of these vital organs life and health directly depend. He is also fortifying the nervous system against hysteria and weakness during adult life. The strategic center of health and growth in the child lies in the muscles rather than in the brain. Hence the early years of school life should be years of muscular education mainly through plays and games.

The child would gladly play most of the time; he cannot sit still; he hungers for movement as for food. The craving for muscular exercise is as natural, normal, healthy, and beneficent as the hunger for food and drink. He craves and needs the exercise frequently and in small doses; only thus can it be most efficient in stimulating and promoting growth. To rob the child of his exercise is as really a sin as to nourish him insufficiently.

You say that the home is the place for play and physical training. This is true. But where can the city child play and run in a flat or in a microscopic back-yard? The school should promote growth and not hamper it, as it usually does.

Most of the brain of the child is very immature, almost embryonic, and needs very little exercise. Much thinking does it more harm than good. A few moments' talk with the teacher several times during the day gives it all the exercise and stimulus which it needs. Our question should always be: "How much work will most benefit the child?" not: "How much can he stand without evident injury?" Between these "recitation" periods the child is supposed to be busy at his desk. His brain is weary; his muscles clamor for exercise; but he must sit still. He learns to sit over his work and not think about it, to dawdle and loll over a book, and think he is studying. If he must sit still at his desk over his book, it will injure him less to dawdle than to study, even though the bad habit becomes ineradicable. But why not send him out on the playground and give him the exercise which he craves? It is far better for his mind as well as his body.

He can actually learn more on the playground than at the desk. The playground is the school of focused attention, quick thought, and right action; of getting on with his fellows, which he cannot learn in the small family at home; of making friends, of self-control, of fair play, and of a host of social virtues. On the playground he "grows and waxes strong," which is about all that the Bible ever tells us of the childhood of its heroes. The years before ten, and especially between six and ten, are golden years for growth. Their every possibility should be fully realized. The child is like a caterpillar storing up material for the trying changes and metamorphoses which immediately follow.

Let us watch the girl a moment. Between ten and sixteen, and mostly between twelve and fifteen, she will change from a lank, angular child into a graceful, rounded, developed woman. The caterpillar becomes a butterfly. Every organ in her body is modified; most of them are transformed. Old material is removed and new added. A very large amount of waste is produced and thrown into the blood, clogging and poisoning all the organs. She becomes pale, loses her appetite, is irritable. She tires easily and quickly, and prefers sitting over the furnace register to a brisk walk in the cold air. Her brain is dull and her studies may become difficult. She loses interest in her work, and becomes inattentive in class.

Her appetite needs to be stimulated to furnish the material for growth and development. But above all her blood must be cleansed, purified, and enriched. Many a girl has been conditioned at school because of poverty of blood mistaken for mental or moral inability. The waste must be burned and the blood purified by oxygen brought in at the lungs. The most important question about the girl of ten or twelve is: "What is her lung capacity?" not: "What is her head-girth?" The latter will take care of itself in due time. With proper physical training her lung capacity will increase during these years with marvelous rapidity, as Anderson has shown. But usually she does not get the needed exercise. She does a little housework at home or "picks up" after the boys just enough to keep her indoors, and sits still and tries to study at school. Her mother adds lessons in music; her aunts tell her not to be a tom-boy; her teachers urge her to study harder. No one notices that the real seat of the difficulty is in the lungs and vital organs. During these years the better scholars have the larger lung-capacity. If lack of oxygen and poverty of blood continues we have invalidism or worse at nineteen or twenty. Then when the horse has long been stolen, we carefully lock the stable door.

The greatest need of our grammar-schools today is rational physical training, and the best form of physical training is free, *but not too strenuous*, play in the open air.

Under our present system physical disorders and morbidity rise to a maximum of frequency at about thirteen, and again at seventeen or eighteen, with but slight diminution between in the case of the girl. The physical condition of girls entering the high schools in our towns and cities is frequently or usually lamentable. This has been proven beyond doubt by medical examination in some of our cities, and is probably true, to a great extent, of all. Yet three-fourths of all the disorders at puberty and of the invalidism at twenty could be greatly mitigated or avoided by a sensible system of physical training applied during childhood.

We have no time or need to study conditions in high school or college. In the older pupils the brain has become the chief center of development and of education. Still physical training is needed, but the muscular system is no longer the all-important center which it was in childhood. Development has shifted from one system to another, and our plan of education must shift its emphasis accordingly.

We are fast becoming a sedentary people living in offices and studies, or behind desks and counters. The American woman almost never uses her heavy muscles, but only those of finger or hand. The whole strain of life and work falls on the nerves, which are least fitted to bear the heavy and continuous strain. A woman with a sound healthy nervous system is therefore a rarity among us. "Health comes in through the muscles, and flies out through the nerves." Our neglect of the nervous system in school and in life is costing us dear. The home cannot or will not remedy the evil. The school must do what it can, or the nation will pay the penalty.

Many of our most useful virtues and some of our most disagreeable vices are physical even more than mental. The dyspeptic can have neither faith, hope, nor charity. Courage, hope, calmness, cheer, endurance, all spring from the motor fully as much as from the mental centers. They are attained through muscular exercise more than through the study of books. If the teacher will develop strong pupils, she must first of all be strong herself. Only healthy parents can breed healthy children. Health of body and of mind must be insured and fortified in childhood. Hence physical even more than mental training is the great business of the child at home and at school. If we neglect or forget this fact, we shall find ourselves fighting against Nature and ultimately against God.

CHILD-STUDY ON THE PLAYGROUND

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There have been three studies of children of great sociological interest—Hall's *Story of a Sand Pile*, John Johnson's *Rudimentary Society Among Boys*, and the *George Junior Republic*. The first gives a vivid picture of the social activities of a group of boys, pursued under conditions of nearly perfect autonomy and spontaneity. The *Sand Pile* was essentially a drama. The children reproduced community life in a country village as they saw it. It was an imitative, idealistic interpretation of village life in play. Everything was reproduced in miniature, people, town hall, roads, farms, houses, barns, horses, wagons, cattle. The boys assumed personalities in accord with the puppets they manipulated, defined social and governmental relations, and participated in public institutions. The study shows how intimately and minutely children may identify themselves with social customs and political institutions in play, and suggests a field for the educator almost wholly neglected.

The study by Johnson describes the evolution of society among the group of boys having free range and control of eight hundred acres of field and woodland. In the case of the McDonogh boys the social relations and acts were genuine and practical, and not idealistic, imitative, and playful, as in the case of the *Sand Pile*. They evolved out of the play life of the boys and were designed to regulate it. Here the autonomy was nearly but not perfectly complete. The study shows that the evolution of society among the McDonogh boys was similar to the evolution of society among primitive peoples. Community of ownership, land tenure, legislation, judicial procedure, industry, and trade developed in the manner familiar to students of primitive societies. The study suggests a science of social embryology.

The playful, imitative, and idealistic social activities of the *Sand Pile* and the spontaneous, automatic evolution of boy society at McDonogh's are less in evidence in the *George Junior Republic*. Here we have a copy by children of modern society and for a serious purpose. Autonomy and spontaneity are present in details but absent in the general aim and development. The *Republic* suggests a method of transition from play to active participation in modern civic life.

These three studies are of great interest to teachers and sociologists, the first offering material suggestive to general education, the second material suggestive to students of sociology, and the third material suggestive to practical philanthropy, yet none offers adequate suggestions for a general method of social education.

It is the purpose of this paper to seek from the playground further suggestions in regard to the social training of children. In doing this it will be well to add to the above studies mention of certain historic instances of spontaneous social relations among adults.

For example, in the year of 1848, in California, there was a remarkable exhibition of order without law, of social control without organized government. In Ross's *Social Control* we find these statements: "Scattered over a large territory, the men of the various camps dwelt together in peace and harmony;" "Legal forms and judicial machinery were as nearly non-existent as it is possible to imagine in a civilized country;" "There was no theft and no disorder; few troublesome disputes occurred about boundaries or water rights;" "It is simply and literally true that there was a short time in California when crime was almost absolutely unknown, when pounds and pints of gold were left unguarded in tents and cabins, or thrown down on the hillside, or handed about thru a crowd for inspection. Wash-basins of gold would sometimes be left on the table in an open tent while the owner was at work on his claim a mile away." This order without law and social control without organized government Ross terms "natural order"—i. e., order without design or art. This natural order, of which there have been other notable instances, occurs only under conditions favorable and stimulative to the natural conscience—i. e., according to Ross, under freedom and equality which, please note, are essentially the conditions of the playground. To this social order the individual contributes, according to Ross, the following traits of personal character: sympathy, sociability, sense of justice, and resentment. Let us inquire whether child-study on the playground can shed any light upon the development of these traits which Ross claims are primarily the individual's contribution to social order.

The first contribution of the individual to social control is sympathy. Sympathy is instinctive and manifestation of it appears very early in childhood, but while the first show of sympathy may be the result of instinctive reaction, it is peculiarly dependent for development upon exercise. Now the exercise of sympathy depends upon the imagination and experience. Children are cruel often through ignorance and through lack of experience, through lack of imagination "stuff." As Miss Tanner says, the sure cure for lack of sympathy is a wide experience and a constant exercise of the imagination in "putting your self in his place." A little kindergarten boy took huge delight, when marching, in kicking the legs of the boy in front of him. Talking did not persuade him to forego this pleasure. Finally the teacher said, "Why, John, didn't you know that it hurts awfully when you kick Walter? Now I am going to show you. Draw back your foot and kick yourself in the leg." John smilingly drew back his foot and gave himself a vigorous kick just below the calf of the leg; his face changed, and he gave out a yell that brought the teachers of the building to their doors, but he was effectually cured.

The playground offers to the observer many hints regarding the development of sympathy, the exercise of the imagination, and the acquiring of experience as related to social conduct. In his play the child splits up, as psychologists express it, into his other selves. He becomes a horse, a dog, the motorman, the conductor, the milkman, the cowboy, the policeman, even the drunkard and the thief. He is in turn the pursuer and the pursued, the caught and the catcher, the loser and the winner, the boss and the bossed, the "it" and the "not it." Here all experience is broken up and remodeled in the imagination and lived again in ideal action. It is this constant adjustment of self to environment and of environmnet to self, of one's own personality to other personalities in play, that gives the widest possible opportunity for the development of sympathy as a contribution of the individual to social order.

Ross's second rôle is that of sociability. This also is an instinctive trait of children. In its early manifestation it is a herding rather than a social instinct. Ross calls attention to a curious fact and that is that sociability is relatively weak in the Teutonic race, the race to which the world owes its most notable co-operative achievements, while in some of the most backward races are found the best instances of instinctive adaptation to social life. The proper balance between the old and the new has not been fully maintained. The traits that have weakened sociability in the Teutonic race have been aggressiveness, capacity for fighting, and love of conquest. "For sixty generations or more," says Ross, "circumstances tended to breed out of him his primitive amiability. Then for a score or so of generations circumstances have tended to breed out of him some of his acquired ferocity." By this selective process, there has resulted a somewhat clannish but self-reliant individualistic type of man, best illustrated in the American.

Again, as Ross notes, the force that impels the Anglo-Saxon to union has become economic rather than ethical, and he is receding farther and farther from the primitive ties of fellowship. How is this individualistic, self-regarding, economic American to be amalgamated with all the nations of immigrants who have come to our shores; or, if the Anglo-Saxon American is to be the force to amalgamate the other nations and ally them to himself, how is this to be done? Child-study on the playground, I believe, will help solve the problem, and it is a real problem. Already one person in three in America was born of foreign parents, one in two in New England, and almost two in three in Massachusetts. On the cover of a report of the Pittsburg Playground Association is a picture of a group of fourteen children of one playground, and ten different nations are represented. Where can the bonds of sympathy, the natural ties of fellowship of these children of the nations be so well developed as on that purest of democracies—the playground? Where else can so well be dispelled the instinctive distrust of different peoples, so well established the mutual respect for each other's worth? One of the largest of Pittsburg's playgrounds is in the heart of a colored district, but the white population is also considerable. It was found necessary to refuse the ball grounds for the playing of matched games between white and black teams, on account of the fighting and rioting of the "fans" of different colors. But this point is to be noted, that all the trouble arose among the spectators, while at no times was there difficulty or ill-feeling between the contending teams. Consider, if you will, the influence of the play of little children of various nationalities together on the properly supervised playground in the smoothing away of race prejudice thru social contact in these tractable years; the value of organized athletic teams whose numbers represent various nations; of systematized sports, under public control, between various sections of a city, when the teams may be largely either Teutonic, Slav, Celt, or Latin. Consider the probable influence in extending the boundaries of sociability of a play festival like that held in Chicago, or Washington, or Pittsburg, or that to be held in this city next Friday, where all sections and nationalities of the city meet in one grand gala day of play, where children of all ages enter the games suited to their years or dance, perhaps in costume, the folk dances of every nation. It is then that the thought of Paul, unconsciously, it may be, gains ground in every heart: "God hath made of one blood all nations of men, for to dwell upon the face of the earth."

The third rôle mentioned by Ross is the sense of justice. It should be noted that while sympathy and sociability have their beginning in instinct, justice is a child of the reason and the intellect. Sympathy might oppose justice. It was counted remarkable when a stern Roman condemned his own, though guilty, sons to death. And yet, the sense of justice implies a point of view, which, at first, may have depended much upon sympathy. We noted under sympathy how the personality of the child splits up into the other personalities, cultivating a habit of doing things from another's point of view. All writers upon the value of play from the very earliest have noted the playground's influence in the matter of justice. Fair play is the Anglo-Saxon boy's slogan. Play fair! A square deal! Disputes among boys in games are disputes over fact, and not over the application of the rules. Boys on the playground do not escape on technicalities, if men do in court. What is the fact, and what is the rule, is all that is asked. The sense of fairness has developed most in the most capable races. This reflects, according to Ross, the sense of power, the feeling of magnanimity. The strong can afford not to take advantage. This is certainly the attitude of play and sport at their best. It was finely illustrated in an international tennis tournament in England a few years ago. In the finals, an Englishman and an American were matched against each other. At a critical stage of the game, set, and series, the American made one of those unaccountable slips that the best of players sometimes make. It was an accident rather than a misplay, but it placed the American at a decided disadvantage. The Englishman, instead of seizing the advantage, deliberately made a similar bad stroke, thereby restoring to his opponent the ground he had lost. It is interesting to note that chivalry developed contemporaneously with the tournament and the joust. I am convinced that if unsportsmanlike conduct has crept into school and intercollegiate sports it only emphasizes the gross neglect by school authorities of one of their gravest responsibilities.

But I believe the playground has more subtle moral influence than this. The incidents of the playground are so infinite and so interwoven with the moods and passions of life itself that it brings the moral nature of the boy into constant trial. Carlisle says somewhere, in substance, that the true man lives the truth and when he has once accepted certain principles he is ready to adjust his conduct always to them whatever may be the consequences. It would be difficult to say how much the intellect and reason are diverted from the truth by sympathy and the feelings. As blood is thicker than water, so prejudice is often deeper than the reason. The reason cannot always detect the prejudice that has prostituted it. Sincere men south of the Mason and Dixon line found in the Bible convincing arguments for slavery. Men north of the Mason and Dixon line in the same book found convincing arguments against slavery. Eight Republicans and seven Democrats composed the Electoral Commission to determine whether Hayes or Tilden had been elected President of the United States. The eight Republicans were convinced that Hayes had been elected. From the same data, the seven Democrats were convinced that Tilden had been elected. If there is any school where the reason can learn to rise secure above the interference of inclination and prejudice, its season is childhood and its best opportunity is play. Incidents like the following are not insignificant. Some grammar-school boys formed a ball team. They were of that age when the individual is just beginning to subordinate himself to the group, and the organization of the team was weak. Trouble began. A boy came to the teacher and said, "The boys don't want me to be catcher. I got up the team. I am captain. I own the catcher's mask. I am the only one that has a catcher's mitt, and I have got a five-dollar chest-protector. Don't you think I ought to be catcher?" "But, Grosvenor," said the teacher, "can you *catch?*" A new association track slowly opened up in the boy's brain. He had a new point of view, reason asserted itself over inclination, and the boy became a better captain and, I believe, thought straighter and truer in social relations ever after.

In a certain historic intercollegiate football game, which perhaps some of you may have witnessed, came a moral crisis to the captain. His side was gaining steadily. There lacked but a few moments till the close of the game. One more noble effort like the last would secure a touchdown and the game would be won. The spectators were at the height of excitement, one side wild with expectant joy, the other depressed and dismayed. The man who had been making the gains was known to be good for another. The captain wavered between reason and inclination. The signal was given. The ball was passed, not to the hero who deserved the honor, but to a fellow society man of the captain's. The play was blocked and the game was lost. Something like a groan passed through the great crowd, and the captain and every man present realized instantly that he had not been true to his trust, that his opportunity had come and found him wanting. That such failures are rare in college sports emphasizes the rarity of social graft on the playground. But the incident illustrates the intensity of moral activity in games and the swift and blasting public opinion which follows moral failure.

Resentment is the next rôle mentioned by Ross and the last that I shall discuss. Among primitive men and boys of equal age it is thought cowardly not to retaliate when suffering an affront. But in highly developed society, man ceases from personal retaliation and has recourse to law and its representatives. It seems to me that the next step in the evolution of resentment is the development of resentment against injustice to society as a whole. It has already developed universally as regards limited groups, and in some men as regards society as a whole. The expression of resentment, of course, wells up out of the fighting instinct. In crude society it is thought to be the expression of manliness, and we have an instinctive distrust of the man who does not resent, although we discriminate as to the manner of his resenting. Out of the instinct for fighting may come the very issues of a rugged moral life. To fight, but to fight for righteousness in one's heart and for righteousness in society—on this kind of fighting depends the rate of the moral progress of the race. Tell me what subject in the curriculum of the school is designed to develop manhood, courage, hardihood, endurance, self-possession, control in excitement, and magnanimity? In school, through literature and history, ideals of such are formed, but ideals are vitalized only through action. Conduct is emotion expressed in motor discharge. In childhood and youth, emotion leaks away if long restrained from motor expression, and the emotion itself may, by continual divorce from action, lose its power as a moral stimulus. President Walker, you all remember, long ago sounded his note of warning that even protracted study, apart from putting that study to practical use, tended toward paralysis of the will and disposition to stand shivering on the brink of action. If this is true of intellectual study, how much more is it true of the emotions? Where else can the instinct for fighting be so well conserved and rightly directed as on the playground? The moral vertebrae of the race depend upon the right training of this instinct. Under right conditions, boys are more ready to play fair than to play foul, to fight with a high ideal than to fight with a low. But fight, contend, they must, if there is ever to be moral sand enough in them to keep their feet from slipping on every difficult slope. I cannot believe that this is inconsistent with the Christian doctrine of non-resistance. Jesus forbade personal retaliation and enjoined the return of good for evil, but his whole life was one of resistance and resentment of evil, in the individual heart and in society—a life of supreme exemplification of every hardy virtue.

It was a great step in advance for society when individual retaliation gave place to the retaliation of society through law. It will be an additional step when the feeling of resentment is aroused by injustice to society, as it once was by injustice to the individual.

Sympathy, sociability, sense of justice, and resentment—these are four lines of the individual's contribution toward social control. In the evolution of society from a simple to a highly complex form there is a danger that a perfect balance will not be maintained, a tendency toward the weakening of sympathy, the narrowing of sociability, the dulling of the sense of justice, and the perversion of resentment. Child-study on the playground suggests that in play we have the best opportunity for conserving and directing these traits in the individual.

If the playground develops sympathy as related to social conduct, if it extends sociability beyond the bounds of family and clan, if it quickens the sense of justice, if it refines resentment and turns it from personal to social ends, has not the teacher among all her glorious opportunities the additional one of great social service through championship of the playground? Let us not despise the playground; let us not fail to hearken to the voice of childhood; let us not consent to abandon the recess, to exterminate spontaneity and to leave the playground a desert waste of neglected opportunity.

DISCUSSION

Professor Joseph Jastrow, University of Wisconsin.—There can be no doubt that the conventional attitude of attention to school details tends to blind us to more real and general interests. All we have heard has been a protest against this, and as such a protest, it is of very great value. When your president asks me to add something of my own to this discussion, I am reminded of one walking through a village after a hailstorm, where he sees that the carpenter has patched his broken window with a piece of wood, the tinsmith with a piece of tin, and the shoemaker with a piece of leather. Each uses what he has on hand. And so, if I am to add anything it must be from my own standpoint and present interest in the subconscious. And we can restate many of the problems from this standpoint: How much of all our acquisitions shall be conscious? How much shall be subconscious? In the past our child-study has been much with the conscious, yet after all most of a child's mental furniture is not of that sort; not of the sort that can be tested by a spelling contest. When we read the lives of great men we are likely to forget that they are also men—that most of what they did was very commonplace. This side of their lives gets suppressed in the biographies. And there is a side of everyone's life and thought that gets suppressed in our work-a-day world. A vast amount of thinking is romancing—nobody is hopelessly sane. We shove the nonsense aside for company, but it is there, and often it shows on the playground.

One of the tasks of child-study is to discover the subconscious. Most of our teaching tells too much—there is over-explanation. Children should often do things not because they know the reason why, but because they don't. The only way to make them do this is by cultivating sensibilities. These express themselves best when they are not too much in the full light of consciousness.

Difficult temperaments arise when that which should be suppressed has come to the fore. Such temperaments are hard to describe—a three-minute description of anything is misleading, and we can't stain a temperament to bring out its different features, as a microscopist stains his slides. Yet, temperaments determine character, and we ought to know them. We can study them to best advantage when we see them exaggerated into well-marked abnormalities.

Winthrop T. Talbot, Holderness, N. H.—What I have to say is purely from the standpoint of an outside man and a physician, and my one word is, "Back to the farm." It seems that the successful fine men and fine women of the country have had the privilege of the training of the farm—the sound, substantial body, the substratum of power, the training of self-control in play, and that individualizing between man and man, and woman and woman, the importance of which has been so ably stated by Dr. Jastrow. With our great cry for air and cry for freedom, the slogan of education in this country should be, "Back to the farm."

PHYSIOLOGICAL AGE AND CHILD-LABOR

ROBERT W. BRUÈRE, SECRETARY OF THE NEW YORK COMMITTEE ON THE PHYSICAL WELFARE OF SCHOOL CHILDREN

May I preface what I have to say upon the relation of Dr. C. Ward Crampton's studies in physiological age to child-labor, with a word of congratulation to the people of Cleveland and of Ohio, upon the child-labor law that went into force on the first day of July, 1908? The law as finally enacted has remained inaccessible to me, although I have made repeated efforts to secure a copy of it. From newspaper reports, however, as well as from the preliminary draft of the bill, I know that it contains many provisions destined to safeguard the physical welfare of children who are compelled by economic necessity to enter factories. Every such statute should be heartily welcomed not only because of the good it aims to accomplish for children, but especially because it indicates an awakening public conscience. It marks another step from brutal competitive barbarism toward an enlightened life-loving socialized civilization.

But it is just at the moment when the advocates of beneficent child-labor legislation are celebrating their triumph that an appeal for increasingly intelligent service needs to be made to educators.

No one who has closely followed the progress of legislation restricting the conditions under which children work has failed to see that one of its important by-products is the revelation of the unfitness of our elementary-school curriculum, as it is at present organized, to meet the needs of that very large majority of public-school children who are destined to serve the state not as clerks or as professional men, but as mechanics. There is a period between the grammar school and the time when boys and girls receive their working-papers, in which children in all of our manufacturing cities are either turned adrift to shift as best they can upon the street, or, tempted by a not unpraiseworthy desire for healthful and gainful activity, to become lawbreakers by doing work before they are entitled to do so by the statute. This fact should not be brought, as I have often heard it brought, as an indictment against humane advocates of child-labor legislation. The responsibility for the grave sin of omission, of which the "lost year" is the striking symptom, rests not at all upon the advocates of liberal child-labor legislation, but upon the educator.

I shall not soon forget the conversation which I recently had with the foremost advocate of such legislation in our state. I was calling her attention to some of the facts which I am about to present to you, facts which show that some children need to be put to work, whether in workshops or in properly equipped schools, before the age of fourteen; and that many children at the age of fourteen are as little fit to bear the strain of physical labor as children of twelve. I suggested that the fitness of a boy or girl for labor should be determined not by an arbitrary chronological age-standard, but by a thorough physiological examination which would determine what the state of the child's maturity was, what the fitness of the child to undertake labor of any kind whatsoever, whether in a factory or the trade school, at the time of the examination, might be. With a flash of zeal, undoubtedly inspired by long familiarity with cruel conditions in schools as well as in factories, she declared that she would fight to the last trench any suggestion, however well grounded in scientific facts, that threatened the minimum age-limit, that tended to show that any child under fourteen was fit for any kind of physical work; and that as for trade and technical schools, which I was especially advocating, she preferred to see boys and girls ranging free upon the streets to seeing them subjected to daily imprisonment, if only during a period of five hours, in the schoolroom. What I particularly remember was her statement that the generation now growing up, when it arrived at the age of forty, would look back upon us of this generation as peculiarly callous to all the needs and rights of childhood, and would rank our educators as second only to the more drastic factory employers among the enemies of childhood.

In spite of the many beneficent changes that have taken place in our school curriculum during the past four or five years, her criticisms of educators was, I believe, for the most part just. Our schools are still encumbered by a false cultural tradition, inherited from the Middle Ages when knowledge of letters was synonymous with education and when work was a brand of inferiority, and which leaves children destined for the mechanic trade entirely unequipped at the end of their school course for the useful work which they must do in the world. Nevertheless, it seems to me a question as to whether we are wise to exchange the Procrustean bed of our present school curriculum for a Procrustean bed of calendar years, however nobly inspired the zeal that established the standard of calendar years may have been. It was because Dr. Crampton's investigation seemed to throw much needed scientific light upon the very difficult problem of adjusting education to the practical needs of our industrial life that the New York Committee on the Physical Welfare of School Children associated itself with him this last winter, with a view to completing his studies upon physiological age among the children in the New York public schools.

As early as 1902 Dr. Crampton, as assistant director of physical training, observed that boys not yet pubescent (as to the pubis) were smaller and weaker than those who were pubescent. He found that he could easily distinguish the *pre-pubescent* or immature by a complete absence of hair, and that he could distinguish the *post-pubescent* or mature by their very well-defined coverings. He accordingly classified the boys who came under his observation as *pre-pubescent* or immature, *pubescent* or maturing, and *post-pubescent* or mature. The results of his examination of forty-eight hundred boys are shown in the four following tables.

Table No. 1 below gives the population of the half-year groups 12.50–13.00 to 17.50–18.00 with reference to physiological age, and demonstrates the important fact that the chronological age groups are not homogeneous.

TABLE I

Age in Years		Physiological Age Groups		
		Immature	Maturing	Mature
12.50	13.00	69%	25%	6%
13.00	13.50	55	26	18
13.50	14.00	41	28	31
14.00	14.50	26	28	46
14.50	15.00	16	24	60
15.00	15.50	9	20	70
15.50	16.00	5	10	85
16.00	16.50	2	4	93
16.50	17.00	1	4	95
17.00	17.50	0	2	98
17.50	18.00	0	0	100

From this table it will be seen that up to 17.00–17.50 each age group has its varied constituency of immature and mature.

TABLE II

Age in Years		Average Weight in Kilograms		
		Immature	Maturing	Mature
12.50	13.00	35.2	36.6	(50.8)
13.00	13.50	35.0	37.2	44.3
13.50	14.00	35.4	37.9	43.8
14.00	14.50	35.2	38.6	45.4
14.50	15.00	36.8	39.0	47.2
15.00	15 50	37.9	38.8	47.7
15.50	16.00	36.7	41.8	49.3
16.00	16.50	(40)	38.3	51.6
16.50	17.00	(42.5)	(41.5)	53.5

SIGNIFICANCE OF PHYSIOLOGICAL AGE IN TERMS OF STRUCTURE AND FUNCTION

If the immature differed from the mature in no other way than this particular sign, it would hardly be worth while to segregate these groups. The classification shows, however, that there is a striking physical change in the progress from immaturity to maturity. At characteristic ages, the mature are more than 33 per cent. heavier, 10 per cent. taller, and 33 per cent. stronger than the immature, as indicated by the Tables No. II, III, and IV.

From Table II it is evident that any statistics which do not include a reference to physiological age are faulty and incomplete in so far as weight and allied features are concerned. Practically all of our statistical work must be viewed in the light of this evidence or disregarded completely.

Table III shows the different average heights of these three physiological age groups for each half year. The error of previous statistical work is clear, and the wisdom of recognizing the basis of physiological age in grouping statistical and other records is thoroly demonstrated.

Table IV is of the strength of grip of the right hand taken with a two-bar dynamometer.

TABLE III

Age in Years		Average Height in Centimeters		
		Immature	Maturing	Mature
12.50	13.00	144.0	147.5	150.5
13.00	13.50	144.2	148.7	153.9
13.50	14.00	145.7	150.4	155.9
14.00	14.50	146.6	150.6	157.9
14.50	15.00	147.3	151.7	158.9
15.00	15.50	149.8	151.5	160.7
15.50	16.00	149.8	153.1	162.6
16.00	16.50	151.0	152.4	164.6
16.50	17.00	(153.)	(151.4)	165.4

Table IV demonstrates again that the immature are radically different from the mature. These three tables present a reiteration of proof of the importance of this classification, upon which it is unnecessary to enlarge.

TABLE IV

Age in Years		Strength in Kilograms		
		Immature	Maturing	Mature
12.50	13.00	26.6	28.2	(32.5)
13.00	13.50	26.3	28.1	33.6
13.50	14.00	27.6	30.4	35.2
14.00	14.50	27.3	30.2	37.8
14.50	15.00	29.4	30.8	38.3
15.00	15.50	29.6	31.1	40.1
15.50	16.00	32.5	30.4	42.9
16.00	16.50	31.7	29.6	43.8
16.50	17.00	(27.5)	33.2	48.3

In view of these great physical differences, it is not surprising that there are demonstrable differences in mental ability.

For a compendium of the great mental and social differences between the immature and mature, it is only necessary to refer to G. Stanley Hall's *Adolescence* and other publications of a similar nature; altho their data are based upon "puberty" and not upon any objective sign, their results are beyond question.

So far in our investigation we have obtained records only for high-school boys, and have taken success in scholarship as an indication in mental ability. The immature boys at all ages fail to pass the work of any grade much more than those who are mature.

Inasmuch as I have had the privilege of collaborating with Dr. Crampton in the formulation of the recommendations which he has based upon the foregoing tables, I venture, with his permission, to set them down here as they were set down in a recent issue of the *Pedagogical Seminary*.

EDUCATION

Our educational plan fails to take any cognizance of the difference between the immature and the mature, and of the vast development of existing and latent abilities, and the accession of new traits which occur during pubescence.

Nevertheless, the trend of our educational endeavor is rapidly changing. That every child entering the kindergarten must proceed regularly through the elementary school, high school, and college, is no longer the end and aim of our system. Our practice is being directed toward life as well as toward culture.

It is being recognized that the world provides little room for the scholar, and much room for the mechanic, clerk, and merchant, and it is idle to endeavor to transform any growing generation of children into an adult generation of scholars.

Hitherto education has succeeded in rejecting all of the children who fail to keep in line with the lockstep, and it has done its work fatally and well. Only those who could endure a system frankly fitted to subserve the ends of higher education remain in school. Only those are rejected who have failed in scholastic promise and accomplishment. These failures must perforce adopt other than scholastic or professional activities to gain a livelihood.

Dropping out of the lockstep into life-work is in one respect a most salutary thing for those unfitted for scholastic development, but our compulsory education law demands that the child be kept in school until he is a certain age, and has completed school work of a certain grade.

This retains the deficient scholar in school long after he has reached maturity, and we find in the lower grammar grades (from 5*a* to 7*a* in New York City) thousands of mature children, who are, have been, and always will be poor scholars, more out of sympathy with school work than ever before, resistant to all school authority, turbulent, unruly, wasteful, and useless burdens merely cumbering the scholastic ground till they become habitual truants, or finally succeed in getting their "working papers." A preliminary investigation shows that in the fifth, sixth, and seventh years in the elementary schools in New York City the poor scholars are on the average 37, 40, and 46 per cent. respectively more advanced in maturity than the good scholars. This is quite contrary to the conditions shown in the high schools.

The fundamental fact is wholly disregarded. A child commences to feel his newly acquired neuro-muscular ability when he matures, his increased mental grasp occasions a change of attitude toward life, and he begins to fit himself for a place in the scheme of adult affairs, and to exert himself for a livelihood and a competence. The instinct for life-work, the "earning instinct" is awakened. Those who have been successful scholars will find themselves well advanced in school, and can with assurance of success look forward to a scholastic or professional life; those who have had poor success as scholars will turn to the world of affairs and strife, of mechanics, industry, or business, for their maintenance. At this time it is essential to the mental and moral health of the boy to engage in something in which he may succeed. Our present system tends to confine him to a dull routine of school failure.

Recommendation I. In the light of the foregoing facts it is recommended that children who mature in the lower grammar grades be given the opportunity to obtain such form of instruction in the elementary school as will directly prepare them for immediately taking a part in active life.

Trade education, business practice, mechanics, etc., in short, industrial education, should be introduced for the purpose of releasing these children from the educational lockstep and affording them an opportunity to become useful citizens. Our great body politic is not essentially scholastic—to train for scholarship alone is undemocratic.

It is at this point the educational system on the inflexible basis of chronological age fails in its functions; it suffers from a lack of rational classification wherever mature and immature children are brought together in the same class. Measured by the Procrustean pedagogical system all children in the same grade are relatively equal in scholarship; but our educational control contemplates no cognizance of other and more valuable traits than those related to school success, traits the mature possess in such a marked degree, and which the immature lack. In the upper grammar grades and in the high schools the mature are probably not so much better in *scholarship* than the immature, but they have a whole range of latent abilities applicable to success in life, which, if trained at this point, would lead to personal benefit and industrial efficiency; neglected, they become relatively useless or perverted.

Recommendation II. Where mature and immature children are now brought together in the same class in the elementary or high school, they should be separated into different classes, so that the pedagogical, ethical, and social treatment to which they are subjected may be better adapted to their disparate and distinct requirements and abilities.

It is agreed that a further division on the basis of success in scholarship would add to the efficiency of teaching since the present idea of the school function is that it is almost purely scholastic. With the growth of the ideal of practical utility as the function of school work and the fitting of our curriculum to the divergent abilities of these two classes the need of this secondary classification will disappear.

CHILD-LABOR

The problem of child-labor is clearly reduced to a formula by our fundamental thesis. It is demonstrated that the mature are from 30 to 50 per cent. stronger than the immature, and that pubescence marks the beginning of the period of rapid increase in weight and strength, regardless of the chronological age. On the merits of the case it is clear that the immature who are weak should not be allowed to work, and that the mature who are weak should not be allowed to work, and that the mature who are more fit to work be allowed to engage therein. At present there is a division on the age basis which allows some immature to work and prevents some mature children from working, causing a hardship to both classes. This is contrary to common-sense, and the feeling of the community is justly against such arbitrary method. That this is being realized with becoming clearness is evidenced by the last report of Commissioner Draper, of the New York State Education Department (Commissioner's Special Thesis; Annual Report 1908; "Our Children, Our Schools, and Our Industries"), and the report of P. Tecumseh Sherman, Commissioner of Labor, New York State, 1907, who states that "there should be added to our law a requirement of a fixed minimum standard of physical development as a condition to granting a certificate of fitness to work in a factory."

Recommendation III. Child-labor legislation should be based upon physiological age.

It is agreed that no child found physically or mentally defective should be allowed to engage in any but the lightest tasks.

In conclusion may I relate an experience which Dr. Crampton and I had a few days before my coming to Cleveland, at one of the great public swimming-pools in New York City? In order to foster the intelligent use of those great public institutions, the baths, we had organized swimming competitions among the boys of the upper elementary grades. The observations of that day illustrate the whole range of the problem of the physical welfare of school children. We directed our observation to a group of about two hundred and fifty boys who entered the swimming-pool at one time. Among those boys nine-tenths confined themselves to the shallower end of the pool, jumping up and down and shrieking like monkeys. About one-tenth of them, being able to swim, enjoyed the full range of the pool. Among the first and larger group we observed many cases of undernourishment, a well-defined case of syphilis, two cases of ringworm, and innumerable cases of conjunctivitis. The undernourished boys illustrated the need for education not only in personal hygiene, but in diet. Both the boys and their parents sorely needed instruction in intelligent feeding. The other members of this group who were suffering from contagious diseases showed how inadequate our medical inspection still is and how sorely we need not only an examination for physical defects, but a follow-up system which will correct them, and thus not only save the health of the afflicted individual, but also of other individuals who are exposed to contagion. The teacher in charge of these boys informed me that on the first day of the competitions he had ventured into the pool to instruct the boys, with the result that he contracted a severe case of conjunctivitis.

But it was among the tenth who were swimming in the deeper half of the pool that the facts appeared which I wish especially to emphasize here. Among the swimmers, the most expert, and the one most perfect in physical development, was a thoroughly matured boy who was distinguished not only for his skill at swimming, but also for his backwardness as a student. He was not, mind you, mentally deficient; he was a victim of a curriculum which takes it for granted that all healthy students must be good scholars. What this boy needed was work. Both Dr. Crampton and I were convinced that if it had not been for the physical training department this lad would long ago have become a truant and a candidate for the Juvenile Court. In both of our minds it was a serious question as to whether boys like him would not be better off in a factory than in a school which has no regard for his individual needs.

I wish here again to emphasize the fact that what I am pleading for is not a reduction in the child-labor age-standard, but for a suitable education for such boys as the one I have just described. His case showed the inadequacy of a medical examination which looks exclusively for symptoms of disease or for physical defects. Nothing short of an examination for physiological age would have suited his case, for such an examination, if officially recognized, would have resulted not in a prescription for medicine or in an operation for the removal of adenoids, but in a prescription for total change of environment and for employment at work as wholesome as the play in which he was indulging, as rich in happiness, and infinitely more useful to him and to the community which the school should have been equipping him to serve. He will never become a scholar. He might have been made an admirable mechanic. As it is, he may become a criminal and a burden upon the state.

In the light of this story I wish to present to you for discussion the question as to whether the time has not come for supplementing the working papers based upon physical health and the prescribed number of years at school with a physical examination which will scientifically determine the state of the child's maturity and his physical fitness for work?

DISCUSSION

MAXIMILLIAN P. E. GROSZMANN, Plainfield, N. J.—If Mr. Bruère's conclusion is true, it may have a bearing upon the child who remains in school. If such a one is prematurely mature, might it not be desirable for him to quit school, or at least to have an entirely different set of school influences? Is it not a much broader question than merely one of labor?

MR. BRUÈRE.—You are quite right. One of the difficulties is that the advocates of trade schools, in the fear of being called faddists, have introduced into these schools something of the sordid conditions of the factory. Possibly we may look forward to the day when the trade school will be free from these sordid conditions, and then a child will go to work as he now goes to play, with courage and happiness.

MRS. FLORENCE KELLEY, secretary of the Consumers' League, New York, N. Y.—The trouble with Dr. Crampton is that his work has been carried on in delightful ignorance of the factories. He has never been in a cotton mill, or a glass mill, and he does not know the children in them. And he does not know the physicians in the foreign colonies, with whom a two dollar fee, and the desire to help a patient's child to get work, can procure for almost anyone a certificate of fitness. With such people to deal with, the substitution of physiological age for age in years will reduce the whole law to a farce.

MR. BRUÈRE.—Competent and conscientious examiners would give reasonably reliable statements. The fact that some certificates are now given by physicians of the other sort is no reason why we should make anu nreasonable law, equally liable to evasion, instead of a reasonable one, based on scientific principles.

MISS SADIE AMERICAN, New York City.—I would like to ask Mr. Bruère if the ignorance of a large body of facts concerning the conditions into which the child may be forced if physiological age is substituted for chronological age, according to Dr. Crampton's recommendation, entitles the investigation to be considered thoroughly scientific, as he has insisted. It would not appear to me to be such.

DR. KREHBIEL.—Mr. Bruère has told us how the swimming-pool is used, utterly regardless of the regulation that requires each bather to take a shower bath first. If such a simple rule as this is neglected, what reason have we to believe that other regulations, depending wholly upon the conscience of the individual examiner, will be observed?

DR. GROSZMANN.—Mr. Sherman has spoken of the force of suggestion. Defective children are much more subject to the influence of suggestion than normal children. It is important that they should not be given bad suggestions, or enough suggestions of any sort, to confuse them and inhibit each other, but parents do not realize this. In this respect, therefore, a deficient child has more chance in an institution than in an ordinary home.

L. PEARL BOGGS, University of Illinois.—The discussion of the welfare of the child by specialists in other lines besides the educational during the present convention emphasizes the necessity for a broader training for the teacher. He has been trained to educate the mind of the child so that he can pass a certain number of examinations, whereas he should endeavor to produce a healthy, intelligent child, who is an embryo citizen and understands right social relations. The teacher, therefore, should study child-physiology and hygiene and child-sociology, in order to understand his broader obligations. Special courses dealing with these subjects should be given in order that the teacher who wishes to know these subjects need not pursue a half-dozen courses in physiology and home economics, or in sociology, in order to know this aspect of child-nature. There are no courses offered so far in these lines, excepting one course in child-hygiene in one university, but the material available for such courses is abundant. At the same time the lawyer of our Juvenile Court, the probation officer, and the school physician and nurses could be more effective if they had something of the training of the teacher.

PRESIDENT G. STANLEY HALL, Clark University.—I have very high regard for Dr. Crampton's work, but in none of his studies has he touched upon the very important question of psychological age. A number of very promising studies, not yet published, have been made within the last two years regarding the psychological age. It does not yet appear how this is correlated with physiological age, but I am expecting great results from investigations.

I do not think we should contemplate legislation until we know about these two ages. But the facts do seem to indicate that there ought to be a change of environment when the two sets of inward changes occur, especially if they come together.

At the "psychological" age there is a touch of openness of mind, of plasticity and receptivity, even in the defective, as though their restrictions were about to be removed, and as though, perhaps, at that time, the defective child could be saved if proper means were only taken. At that time the defective mind seems to grow with more of a spurt than the normal.

THE PHYSICAL BASIS OF ATTENTION

WINTHROP T. TALBOT, DIRECTOR OF THE LAKE SCHOOL, HOLDERNESS, N. H.

This discussion deals with physical conditions among those school children who pass as normal. Gross defects of the special senses such as partial blindness or deafness, which impair attention, must be passed by without consideration, as ordinarily they are discovered and treated by the medical inspector or teacher. In every school there are many children whose power of attention is impaired by definite physical defects or needs, which pass unobserved. There exist underlying physical causes why school children fail to pay attention to their work, and give constant annoyance by whispering, wiggling in their seats, biting their finger nails, chewing gum, or reading forbidden books. The lessons themselves may be interesting, the schoolroom seats and desks comfortable, the teacher efficient, but something induces inattention. What may it be? First, let us agree to ignore the psychologic and pedagogic aspects of attention. Their acknowledged importance would obscure the point at issue, which is the physical.

Before attempting to supply any definite explanation of physical inattention it may be worth while to consider a few specific clinical cases. Possibly thus we may be led to modify our conventional mode of regarding inattention as the fault of the pupil himself, and instead consider whether inattention may not be due in largest measure to physical errors permitted or encouraged in the home or in the school.

The following cases are drawn from a series under the personal care of the writer.

Case A.—A boy of fifteen, stocky and well built, capable in athletics and with manual dexterity, desired to regain his place in his class from which he had been dropped, and was aided in every way to this end, but to no avail. He could not fix his attention long enough on any subject to do consecutive work. Adenoids had existed, but were removed. The most careful medical examination failed to show adequate cause for inattention. On living with the boy and watching him in his sleep it was found that at night, unconsciously, he would turn on his abdomen. The pillow under which his arms were stretched as he lay prone would necessarily elevate the chin, the head would be forced back, breathing would become heavy, almost stertorous. The blood, through impeded respiration, would become deprived of oxygen, the face and lips blue, the boy would begin to strangle, make a great convulsive effort, turn on his side and begin again to breathe normally. This process of semi-strangulation occurred nightly, and the periodic venous congestion of the brain was intense. Pillows were removed, the boy was aroused to assume, of his own accord, a correct posture in sleeping—the nightly suffocation was ended, and within six months the boy was able to give entire attention to his studies.

Posture in sleep rarely has such marked results as in this case but incorrect position will always have some effect on mental power.

Case B.—A boy of eighteen is incapable of continuous study or attention unless his interest is thoroughly aroused in some subject, such as stamp-collecting. On this he works until 12 or 1 o'clock at night—his parents believing him to be in bed and asleep. Cigarette smoking is an additional disturbing factor. Sleeping out of doors for eighteen months, winter and summer, removed the craving for cigarettes, and long hours of early sleep enabled the boy to gain nervous poise and so increase the length of his study periods from a brief ten minutes to the normal period of an hour at a time.

Complete oxygenation of all the organs of the body by out-door sleeping in proper postures may prove a potent means of increasing attention.

Case C.—The son of intelligent parents of large means—a boy of eighteen, of excellent mentality, has been surrounded by fellows interested chiefly in the nimble-toed sylphs of the comic opera—in brief he is stage-struck, and has practically no other interests. He is of large frame with inadequate lung capacity and slight muscular strength; in his lessons his mind acts capriciously, enjoying only the sweets of study. Hard concentration is a thing unknown to him. Five months on a farm, chopping, riding, snowshoeing, etc., increased his lung capacity from 244 to 312 cubic inches and his strength 60 per cent. He was enabled to return to his class in college with greatly increased powers of attention, and, in his own words, having learned, for the first time in life, to think. In this case inadequate physique rendered the boy weak in nervous tone so that he could not withstand social distraction.

Case D.—A boy of fourteen in very moderate circumstances had fallen out of his class, although originally bright and intelligent beyond the average. Dermic hypertrophy giving rise to long continued local irritation had stimulated and weakened the central nervous system and affected his vision as well. He was unable to give continuous attention to any book-work. In this case a local operation relieved irritation, and was followed by steady and gradual improvement in his mental attitude and powers.

Oftentimes operative procedures are essential; the danger lies in deferring them. It is to be remembered that vicious habits are begun oftentimes as early as eight or ten years of age and may always be prevented.

Case E.—A mouth-breather of thirteen years with little appreciation of the difference between *meum et tuum*—a trait often associated with respiratory defects and cigarette smoking—has a large adenoid growth removed and gains greatly in power of attention. His main interest lies in accumulating a varied assortment of the choicest specimens of slang probably ever collected. It is open to question whether there was not in this case a close association between a slipshod mode of speech, expressing lack of muscular control, and a corresponding infirmity of power of attention.

Space does not permit the citation of other cases, but in these instances it was evident that important causative factors of inattention might be impeded respiration and circulation; sub-oxygenation of tissues due to late hours and cigarette smoking, nervous excitement thru diversity of social interest, irritation at an early age of the sexual nervous system. The combination of adenoids, cigarettes, and slang is a trio of adolescent acquirements deserving fuller appreciation by teachers and parents.

The needs of the respiratory system in the child even more than in the adult, the necessity in the young for deep breathing of fresh air day and night, is so clear to anyone who has studied the subject as to require no further emphasis; but the relation of food to attention is not so clear. Something has been said of late regarding semi-starvation in public-school children; little stress, however, has been laid upon the chronic poisoning of boys and girls by incompatibles in diet and the overloading of the system with materials nutritious in themselves, but supplied in improper proportions and injudicious mixtures. For example, acid fruits are wholesome, milk is wholesome, but the combination of strawberries or peaches with milk or cream commends itself neither to the student of nutrition nor to the epicure. Children eat greasy doughnuts and candy at the same meal, subsist on a diet of meats and sweets, drink insufficient water, form the boarding-school habit ot bolting food in order to get a second help quickly, and suffer from countless other dietetic errors. Much more should be said upon this topic as a cause of inattention.

Of the casts of teeth made by the writer from thirty boys, 10 per cent. showed abnormal occlusion to such a degree that no lateral movement of the jaw was possible, thus precluding mastication, with the result that the boy was obliged to ingest food in bulk without adequate nutritional return, in order merely to sustain life. These boys were all very thin; almost emaciated.

Any drain upon the nervous system due to poisoning through insufficient oxygenation, the accumulation of toxic, burned-up food-material in the intestines, is sure to result in impaired attention. Lack of sleep or sleep disturbed by noise, as of trains and trolley cars, may also be blamed justly for inattention in the schoolroom. Sexual stimulation through physical abnormalities or the stimulation and alteration of blood pressure by means of promiscuous companionship of boys and girls in city high schools, novel reading, cigarette smoking, lewd pictures and theater posters, or any other stimulus affecting the emotions and thus weakening the will, all have a physical reflex upon attention. Enough has been said to indicate clearly certain conclusions, and chiefly that if a child is inattentive at school, in most cases it is wise to lay the blame, not upon the child, but primarily upon ourselves or the child's environment, and try to discover what will be found to exist in most cases, namely, a physical cause for this abnormality.

The question which naturally comes at once into the mind of the teacher in considering the actual treatment of individual cases of inattention is what means can be adopted to counteract physical defects which are giving rise to ineffective work. First let us consider in what regard schools may be at fault. Instances immediately come to mind of school buildings where expensive ventilating plants have been installed at the cost of many thousands of dollars which do not ventilate—buildings where windows are not allowed to be opened because of interference with the "system," and, owing to the complexity of the plant or a janitor's inefficiency, the air in the rooms is usually foul. One of the best-ventilated buildings of a public nature is the Children's Hospital in a city of central New York, where for years cotton screens have been used in place of glass in the upper part of a window in each room. Three screens are used in cold weather, the layers of air between the screens not conducting the heat, and so an equable temperature is maintained, but fresh air filters through the meshwork of the cotton cloth continually. Any room may be successfully ventilated by the writer's simple device of covering an ordinary mosquito or fly screen with a layer of cloth tacked on either side of the screen, the window lowered and the screen inserted in its place. No school is too poor to supply this device; no family is without sufficient resources to permit ventilation of a child's bedroom thus without draughts on the coldest days of winter.

Second, Weekly records should be taken with a spirometer of the lung capacity of each child in the schoolroom, and the records publicly posted. It will be found that the child's record of academic work will be favorably influenced as his lung capacity increases and the children themselves will develop a real interest in studying methods of increasing their lung capacity when they find that those who do best in their spirometer records are apt to do best also in their athletic sports. They may even succeed in converting their parents to such a degree that they will permit them to have a little fresh air to breathe at night. Those who have observed children sleeping in an ill-ventilated apartment have noticed the shallowness and rapidity of the respiration; on flooding the apartment with cool fresh air the rate of the respiration falls, and each breath becomes deeper, oxygenation is more complete, and the child awakes in the morning refreshed and far more inclined to do school work. The increase in summer camps in twenty-two years from two, with about fifty boys, to over six hundred, with nearly twenty-eight thousand boys, is due in the main to the vastly increased efficiency, mental as well as physical, during the winter following the camping experience.

The next logical step, naturally, is the establishment of the public-school camp. This suggestion is offered by the writer as being practicable and economically advisable.

Third, A statistical record in the classroom of the actual bed hours and hours of sleep of each child, compared with his class standing, is of practical service. These records could be kept by a committee of the children themselves.

Fourth, There should be an organized scientific investigation of incompatibles in the diet with promulgation among parents of the conclusions reached.

Fifth, Definite action should be taken by this and other associations and by the government, to carry on scientific investigation of deficiency among school children, based upon systematic and careful observation of physical conditions as correlated with academic work.

THE VISITING NURSE AND THE CHILDREN REQUIRING SPECIAL EDUCATION

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Teaching is the most influential of all professions, and the fact that teachers have not yet come to their own retards the progress of civilization. It is not only that our hopes all point to the schoolroom, but our activities, it seems to me, all lead us there, sooner or later. Preventive medicine, public health, patriotism, national progress—whatever we are interested in, some day it brings us to the schoolroom door. So it has been with my study of the feeble-minded. I began in the hospital but soon reached the school.

We have two topics to consider—the visiting nurse, and the child requiring special education.

I need not remind you that the rise of nursing as a profession for women was one of the great events of the nineteenth century.

> The spirit of thoroness added to her feminine sweetness and the deep wisdom that comes from knowledge and suffering and labor manfully attempted constitute the greatness of Florence Nightingale, the Mother of the Nursing Profession. . . . . It is half a century and more now since the days when in these "long arcades at Scutari" dying men sat up to catch the sound of her footsteps or the flutter of her dress, and fell back on the pillow content to have seen her shadow as it passed, and it is good for the glory of her native country to think that she is still honored among us and that her failing years are passed in peace and cheered by the gratitude of the sons and daughters of the generation she succored.

Such was the founder of the nursing profession and such are her true followers. One of the truest of these is the visiting nurse, or the school nurse, who is a visiting nurse with special work in the schools. Miss Honnor Morten, a member of the London School Board, induced the managers of an elementary school in a poor district of London to ask Miss Amy Hughes, a trained nurse, to visit the school once a week and relieve the "small ills of the children." This work was so much appreciated that it led to the founding of the London School Nurses' Association in 1898. In 1900 the London School Board, (now called The Education Committee of the London County Council) under the inspiration of Sir Shirley Murphy, medical health officer of London, England, and Dr. James Kerr, their own school medical officer, appointed one school nurse as an experiment. It was not an experiment long. There are now fifty school nurses in London (each having charge of 25 schools), 35 in Liverpool and many in other places.

The first school nurse in New York began her work in 1902. It was one month's experiment by one nurse who was sent by Miss Wald of 265 Henry Street. But the work was such a help that the Board of Health then appointed twelve school nurses and there are now about seventy in that city. There are indeed few cities in the United States which have not at least one school nurse.

Special education, of course, in principle, differs in no way from education in general, which perhaps never was defined better than by Matthew Arnold in these words—"Education develops the powers of the mind, and gives us access to vital knowledge"—a definition in which every word is significant and emphatic. No matter why the child requires special education, it is obvious that he must have the power to profit by instruction. The public school is not a prison, a hospital, or a place of custodial care. But when the child can profit by instruction, we are bound to provide it for him. We have compelled him to come to school, to be educated, and he can be educated, therefore we must educate him and adapt our instruction to his needs. This of course cannot be done in our large classes. These children must be placed in special classes by themselves, a class numbering not more than twelve or fifteen, and under the charge of special teachers—teachers of more than average skill, resource, sagacity, and humanity. The watchword should be: Forward teachers for backward children.

The teacher has the real power—the school nurse or visiting nurse is only there because she can help the teacher and the children.

There are, of course, two great classes requiring special education—the physically defective and the mentally defective. In the former class are those whose special senses are affected, who are wholly or partially deaf or dumb or blind. There are also those who have been cruelly disabled by disease or accident, so that their powers of locomotion are in some way impaired, or those who are suffering from tuberculosis, rickets, etc. In some one way or other they are not as others are. They are set aside, often left behind. But they need a chance. They need to be placed on the common level of humanity, which is the only safe ground for us all. They can nearly always do their share, if we will let them. They only need the chance to work and to learn, like their patron saint, St. Giles. We are far too ready to excuse them and separate them and cut them off from the vital currents that we enjoy. And that kindness is a mistaken kindness. I am persuaded, ladies and gentlemen, that your attitude is not the attitude of the general public, which does not understand, to the physically disabled, the Guild of the Brave. You know what they need—

Destroy me not, O friend, I pray,
With thy well-meaning sympathy;

Give me no pity, but a place
Where falls the sunlight on my face.

God showeth me no special grace,
And why should'st thou? Yield me my place—
The right to strive—and spare me, pray,
Thy well-intentioned sympathy.
—*Helena Coleman.*

They make their lives effective and fruitful and successful, and how often sweet, with all the odds against them, and all the prizes won by somebody else; the race that is to the swift run by others and the battle that is to the strong fought on fields that their fetters will not let them reach.

In the routine of medical school inspection not long ago, I met a girl of nineteen who had fought such a battle against tuberculosis as makes one wonder as much at the courage of the patient as at the cure of nature. There was no limb without its scar—and the very profile, the very attitude of the girl showed the power of the enemy. Many a soldier has won the Victoria Cross for heroism not so great and courage not so enduring.

Let me say again that what these people need most is a place in the firing-line. We should be ashamed to think so much of their disabilities and to forget their abilities. How often do they put us to shame! Did you see in the New York World ten days ago (June 20, 1908) about Joseph Gillighan at Morris Plains, N. J.? Joseph was run over by a trolley car in Brooklyn when he was eight years old, and he lost his right arm, and both his legs and three fingers from his left hand. That was ten years ago. Since then, he learned to swim. His parents got him artificial limbs and on June 20 he was sitting showing these artificial limbs to some boys, having unstrapped them for the purpose, when he heard a cry for help from the pond near by. He got there somehow, without waiting to put on the limbs again—plunged in, swam to Alexander Patterson and Augustus Monaghan who were drowning in ten feet of water, pushed one of them in front of him as he swam to shore, and then went back and rescued the other. How many of us with our four limbs could have done that!—and he did it with one limb and two fingers, and then—pathetic touch—the boys whose lives he had just saved carried him home to get dry clothing.

We who know these pupils, know them at their best and worst, are the ones who are most sure that they should have, for the public good as well as for their own good, special education. There is only one condition—namely, that they should be able to profit by such special education. And in order that they may profit by it, we must first of all use great study, care, and knowledge in adapting this education to their needs. The first and greatest thing we can do is to prevent impairment of mental and bodily powers, if we can. The school doctor and the school nurse will discover many an incipient case of hip-disease or knee-joint disease (the old "white swelling") and send them to the special classes now held by forest, stream, and sea—all-the-year-round open-air schools, where the children fight the enemy and escape the scars and disabilities that else so often are a life-long burden and handicap.

The open-air schools were begun in 1904 at Charlottenburg in Germany and are now held at four other places in Germany, Berlin having just voted $70,000 for this purpose. At Charlottenberg 100 children were sent. At the end of three months, 23 per cent. of the children were cured of anaemia, tuberculosis, etc., and 45 per cent. had greatly improved. The average gain in weight of the 100 children was one-half pound a week. And not only were they better, but the educational results were good. On return to school nine-tenths were able to resume places in the ordinary classes at once.

In England there are now six open-air schools—one at Knolls Green, Manchester, one near Bradford, and Bostal Wood, Forest Hill, Shooter's Hill, and Kentish Town, the last four being under the London County Council.

You will be still more interested in the Providence, R. I., Fresh-Air School, described in *Charities and the Commons* by Walter E. L. Kruesi, secretary of the Boston Association for the Relief and Control of Tuberculosis. It was opened in January by the school trustees of that progressive place. The children either had tuberculosis or had come from homes where there had been one or more cases of tuberculosis. First, as to the schoolroom: It is very large and there are very few children in it. The south wall is all windows, open all the time, so there is really no south wall. The little chair and desk of each child is on a movable platform, so that the child's back is always in the sun and the platform follows the sun round the big room all day. There is a good old kitchen stove which heats the soup the children get at twelve and the soapstones for their feet. The Providence Tuberculosis Committee provides warm gloves and a bag of warm thick quilting into which the children put their legs. This bag also comes up right over the back. The children always keep their hats, coats, and mittens on.

I need not say, ladies and gentlemen, that fresh-air schools have a great future before them. It is also evident that the relation of the visiting nurse to them is an organic relation. We cannot do without her. She is the life of such a school.

The proportion of physically defective in any community is about one in one thousand. Denmark, Sweden, Norway, Italy, Germany, are all beginning to make provision for them. Germany has thirty-three "schools of labor," with 2,660 pupils—they have succeeded in making 90 per cent. of the physically defective wage-earners by means of special technical schools.

It is to be remembered that the arts of war and the arts of peace, as well as science, have been enriched by the genius of those who though disabled by a cruel fate yet discharge with marked heroism and success the duties of life.

What has already been said about prevention has a wide application. Reduce scarlet fever by thoro medical inspection and you reduce the number of deaf by perhaps 50 per cent. So with blindness. The report of the New York Association for the Blind says that two-thirds of the blind in New

York state lost their sight after school age. This is astonishing and shows the need of the school doctor and the school nurse.

Liverpool one hundred years ago was the first town in Great Britain to build a school for the blind and now the people of that great city have done a far better thing in devoting part of St. Paul's Eye and Ear Hospital to the special care of that dread disease—ophthalmia neonatorum—which causes far more blindness than all other causes put together. The British Royal Commission made out that each blind person cost the state £50 a year and that sum of money for three blind people, if expended in paying the salary of a visiting nurse to prevent (and it is so easily prevented) infection occurring at birth, would save the expenditure of thousands of pounds when the damage is done. Prevention should be our aim and prevention will prevail some day, but meantime special education is the best thing for what we cannot prevent. The occupations and studies of the blind are necessarily different from those possible to the deaf. Thus the blind learn to walk securely and at a rapid rate, to swim, to ride, to use sewing machines, to cane chairs, and to act as barbers. They make expert telephone operators, typewriters, and piano tuners.

We must take the far look and remember that education is a preparation for life. One great danger for our special children is that they may never emerge from a condition of dependence. It must be our aim to secure for them through special education the noble privilege of being independent so that they can live their own lives. In this, special schools and special classes have been very successful and vindicated their right to recognition as a successful part of general education.

To sum up a little what the visiting nurse does for the child requiring special education we see that her work in the school is ameliorative and in the home preventive. She builds the bridge between the home and the school so that each can reach the other. She explains the situation to the parents and makes friends with them. She shows the mother how to do things; she sees that the child has necessary medical attendance; she makes the parents understand the state of the case from an outside point of view. Perhaps I can best illustrate this work by giving an outline of the work of the school nurse in the special school attached to the Passmore Edwards Settlement in London, in which we all feel an interest because it is Mrs. Humphry Ward's settlement.

This nurse is well qualified and has not only seen service in English hospitals but on plague duty in India and finally in the Boer War. A visiting nurse can never know too much about the world. The day's work begins at 8:30 A. M., when she accompanies the ambulance that brings the children to school. Then she has to oversee the dinners of the children, paid for by nearly all the parents at the rate of one penny or twopence. The ordering, accounts, etc., are in charge of the nurse who is also responsible for the health and cleanliness of the children and has many dressings, etc., to do. Then there are physical xercises to be supervised, and then from three to five ambulance duty again.

The salary is £80, which is far too small. The nurse has three districts under her care, Hoxton, Shoreditch, and Whitechapel, and makes a point of knowing the parents of all the children. There are now in London not only a great many special classes but two special schools entirely devoted to special education, the one at the Passmore Edwards Settlement and the other at Osborne Place, Whitechapel, which was opened in April, 1908, and in a few weeks had 85 children in attendance, including children suffering from paralysis, hip-disease, heart disease, and also mentally defective children. Mrs. Humphry Ward appeared before the London School Board in 1898 to plead the cause of physically defective children and thus the one class at Passmore Edwards Settlement was begun. Sir Thomas Barlow gave the ambulance, and the settlement gave the schoolroom and the nurse. Among 857 children attending the school now, more than half are tuberculous, there are 77 cardiac cases and 162 cases of paralysis.

I must not forget to mention in this connection schools in Chicago and elsewhere, and the school home and hospital for physically defective children which was built in memory of Josephine, the wife of Mr. Widener of Philadelphia. Surely her husband built for her a monument more enduring than brass when he gave her name and memory to this noble institution.

It would seem to be necessary to make some provision for the meals of the children attending special schools. And of course the visiting nurse once more holds the key to the situation. As a rule she can buy the food materials with the pence the children bring, but the kitchen, the utensils, and the cooking must usually be paid for by the school. In one school in England £106 paid for 13,000 dinners.

The school nurse has many opportunities to help the children to develop public spirit and social gifts, in a word, unselfishness. Many will make a sacrifice and walk a block or two so that the ambulance can pick up more children, and the opportunity of acquiring manners at table is invaluable.

No human being is a negligible quantity and we have made a great mistake in the past in thinking that the school could neglect the feeble-minded child. No feeble-minded child is a person you can neglect. You could almost protect the next generation from the problem of the feeble-minded if the school and the state did their duty. The feeble-minded can and ought to be educated to be useful to themselves and not harmful to others. The special class should be a clearing-house where the 66 per cent. or more of special scholars who will always be dependent and need lifelong care may be recognized, carefully studied, and placed in home schools or parental schools which will be their permanent home. This is their "firing-line." This is the only way of dealing with the problem.

The feeble-minded are difficult to define but not difficult to recognize. They can profit by training and instruction. They are capable of useful work. It would be almost impossible to mention any business or trade at which they could not do something, if under skilled and efficient supervision.

They can do almost anything in this way that a normal person can do, but someone must supply the brain power. What they cannot do is to manage their own affairs. What they lack is prudence, self-control, will-power, judgment, restraint—they cannot take care of themselves. For them book learning is thrown away very largely. A good many can be taught to read and write, and perhaps to count a little. That is all. An hour a day seems to be the limit for "book learning."

All they learn should be of use to them in after life. They *can* do what they are told. They can imitate, so we should teach them habits of imitation which will do instead of habits of reason.

They may and often do become self-supporting, or nearly so, but never self-controlling. At Starcross, near Exeter, in England, I have seen them working with ease and comfort at about twenty different trades, making beautiful Honiton lace, weaving cloth, or executing orders for wood-carving which brought in much money besides all the benefit of the work. They need most skillful care; physical defects are twice as common in feeble-minded children as in normal children.

The first class for the feeble-minded was opened in Halle, Prussian Saxony, by the principal, Herr Haupt, September 28, 1859. England, the United States, France, Finland, Norway, Denmark, Sweden, Switzerland, have since established special classes. There are at present in Germany 203 special schools with 13,100 pupils. England began in 1892, the United States in 1894. In New York there are now 41 special classes with 731 pupils. I have had the privilege of visiting some of these classes, and it is an inspiration to think of the work that goes on there under Miss Farrell and Dr. Thompson. Philadelphia has ten special classes and one special school for the feeble-minded. Boston and Chicago are also doing a great work for mentally defective children, and other places are following fast.

Estimates of the proportion of the feeble-minded to the general school population under fourteen vary from 1 per cent. to one-tenth of 1 per cent.

The school nurse is all-important to the success of this work. In no department of special education is tact, kindness, and readiness of resource more needed than here. The home is the strategic point. The first step is to get the child to school at all. The best years for training the feeble-minded are from three to thirteen and this means much assistance in getting the child safely conveyed to and from school and also a permanent and influential place for the nurse in the counsels of the home. It is often a matter of great difficulty to get the parents to do what is best for the child, yet what you can do for these special children is so much worth while that the work is its own reward. These children come to be to us an absorbing interest and their welfare worth living for. Merely as a preventive measure and for the general good I know of nothing that counts more certainly than the care and special education of feeble-minded children.

WHAT THE REGULAR CLASS TEACHER SHOULD KNOW OF MENTAL AND MORAL DEFICIENCY

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It is well that both mental and moral deficiency are included in our title, for when one begins an investigation of either, he is very likely to end up with the other. I have often been surprised at the similarity of the two classes in regard to both characteristics and needed method of treatment. It is my purpose to speak of certain facts, true among those admittedly moral deficients, or mental deficients of the highest grade, those most likely to be found in the regular classes.

Let us agree immediately that deficiency is a quantitative not a qualitative term, that the mind of the mentally deficient and the conscience of the morally deficient is the same in kind as that of the normal child; that the difference is in degree, not in kind. Assuming this, our discussion becomes valuable to the teachers of normal pupils as well as to the teachers of subnormal pupils.

First, the teacher has a twofold duty, a duty toward each child as an individual, and a duty toward the children as a school or a class. The requirements of our subject give us the teacher with the class and the class including an indefinite number of deficient pupils. On the one hand, the teacher should leave the individual to his fullest possible development; on the other, the class as a class must not be slighted in time or energy. The teacher finds these duties continually conflicting. Sometimes the interest of the individual child requires immediate and extended attention, but at the same time his duty to his class as a whole will not permit it and the supposed duty is left undone. Sometimes it is necessary to leave unexplained the tenth problem in an arithmetic lesson of ten problems, when nineteen out of the twenty pupils in the class understand it. The duty to the one is to explain the problem to him; the duty to the nineteen is to pass to work that will be of advantage to them. Again, it is sometimes necessary that the mischievous boy be shut out of school in order that the interest of the others may not suffer. I do not underestimate the duty to the child or the value of the child. The value of a child cannot be measured in piles of coin, or foot pounds of work, or hours of patience; the value of the child is infinite, measured in terms of anything except other children. What would one take in exchange for his arm or his eye? Yet sometimes the arm must be amputated, the eye must be plucked from its socket, in order that the remainder of the body may have health. So it is with the school. It might be that some skillful teacher might be able to do well by the member and subserve the interests of all, just as sometimes the arm or eye might be saved by a great surgeon, although the country practitioner with his meager skill can do no more than save the body.

So the first duty of the teacher who has deficients in his class is to analyze his overlapping duties, and when a conflict comes, let him not shirk his duty, but take up his problem, weighing this on the one side, that on the other, coming to the conclusion carefully and prayerfully, remembering that he is performing an act which is a care to God himself—the shaping of human destiny.

In the second place, the appeal of the square deal is no less effective to the deficient than to the normal. The teacher or administrator who can build up a reputation for square dealing has an advantage which will carry him along in even doubtful situations. On the other hand, the one who has acquired the opposite reputation finds himself at a disadvantage in every case. It is comforting, therefore, to observe that what boys and girls think of as a square deal is the mental state of the administrator, rather than the actual decision. Whatever may be the opinion of the children in regard to this justice of a decision, if they believe in the honest intention of the administrator, they still respect his squareness, though they may condemn his reasoning ability. In the highest sense no punishment is just until the offender himself admits the justice of the punishment. On the other hand, the hurt of the unfairness is greater to most children, deficients as well as normal, than the sting of punishment.

It is comforting also to know that even deficient children appreciate that the square deal not only allows but necessitates different treatment for different children.

In the third place, the course of study should be arranged in order to suit the situation. It is absurd, for instance, to use the ordinary city course in a reformatory institution, even tho most of them seem to regard it as ideal. The city course is planned for from eight to twelve years of consecutive work. The fifth grade omits certain important things because they have been given in the fourth grade, or will be given in the sixth. For instance, in one large city the geography of the home state is taught in but one grade, the sixth, while the duty of a voter to participate actively in public affairs is touched upon only in the eighth grade. The boy who comes to the reformatory has usually had slight schooling. He is on the average from three to five grades behind the ordinary child. His term in school will average say eighteen months. After he is paroled his schooling will be practically nothing. He should therefore be given the most efficient training possible in this brief time. How foolish then it appears to throw him upon the moving sidewalk of the city school-system. The ordinary child stays on the sidewalk long enough to take a round trip. The deficient child in the reformatory is thrown on and in a few moments he hops off.

The proper course for an institution school is therefore one in which the full cycle of the essentials is traversed in the average term of commitment. There should be a succession of schools, gradually increasing in scope and difficulty from elementary to advance. Each child as he enters should be assigned to the one best suited to his ability. He should remain there until the course is covered. The course should be so arranged that a child can go on with the class in most if not all of the studies, no matter where he begins.

There is no need whatever for a promotion scheme and there should be no useless machinery. If the child is strong enough to do harder work, he should be put into a harder school. If he has worked through the course of one school, let him put be into the course of a more advanced one. Let no striving for effect in the making of an elaborate system or in the aping of the methods of the city schools blind us to the fact that it is our business to do the greatest possible good to the children in the time they are given to us.

In the fourth place, the importance of teaching from a point of personal interest is greater than with normal pupils. While it is really important that the city teacher be able to teach in a true sense, it is absolutely necessary for the teacher of both mental and moral deficients to be a *real* teacher.

It is of very little use to set a lesson and expect the pupil to do the rest. He will do something, but it will not be "the rest." In one reformatory school we have found it best, even in advanced grades, to cut down the time for recitations and to combine recitations and study periods into study recitations. It is necessary also to find the point where the lesson touches the interest of the pupils and to start from that point; for instance, we try to teach geography by studying the countries from which the boys in the school have come. Abraham Cirian came from Italy. We study where Italy is, how we could get there, how far it is, what the country looks like, how the people dress, what they do, how they are governed, etc. All this is studied as connected with Cirian's old home.

We omit much that does not appeal to the child's sense of utility. Technical grammar we ignore, except in so far as it is necessary in order to make plain the rules of composition, such as the agreement of the subject and predicate. In arithmetic we work mostly in measurements, denominate numbers, and business problems. In physiology and hygiene we push hard on the hygiene. In every lesson in all studies the teacher must first find the point of personal interest and must work from that point. There is nothing especially new in this, but it is of permanent importance. In ordinary schools the gaining of interest is beneficial to work, in schools for the deficient it is absolutely necessary.

In the fifth place, moral as well as mental deficients retain in youth a certain unexpected innocence or naïveté due to arrested development. In mental deficients this is what we expect; but it is surprising to the observer unfamiliar with such cases to notice childishness even in the street gamin. Boys who are adept in snatching a living and other things from the city street, who are past-masters in street-craft, often exhibit ignorance and interest in the most unexpected circumstances.

We find also a curious similarity in knowledge and opinions between the deficients of eleven and the deficients of eighteen years of age. There probably is no one keener in retort or more forcible in street English than the street boy of eleven; but at eighteen he seems a little wiser or shrewder. While at eleven he is more than a match for the town boy of fifteen, at eighteen he is his inferior. It is doubly important for the regular class teacher to know this, because it is by the opening-up of new channels of thought and new worlds of information that she can give impetus and opportunity to the petrifying mind; and only by doing this can there be mental and moral awakening.

A hobby or a fad is of actual advantage to the teacher here. It matters not so much what it is as that she have it hard. Flowers or weather or historical characters or snakes—anything will do, so long as there is behind it the spirit that the pupils may catch.

In the sixth place, the teacher should know that she must expect as a matter of course egregious failures in understanding, as well as disappointing cases of laziness, deceit, and instability. The mental attitude of the teacher should be that of patience towards stupidity and desire to try the same thing in another way. I have been told that in the west there is a district where but one crop is raised in two years because of the scanty rainfall. The farmer therefore plows his field, but plants nothing the first year. He cultivates the empty field after each rain, breaking the crust and conserving the moisture. The second year he plants his crop, tends it faithfully and reaps a bountiful harvest. We teachers of deficients must expect to wait long for our results, and be not surprised or chagrined if the results be still meager.

In the moral deficient we must expect frequent falls from grace. We trust the boy, he fails us. After a time we trust again and again. Again probably we trust him, and again we are disappointed. But there comes a time when our trust is kept. The boy has become trustworthy and our end is gained. This trust should be bestowed for educational reasons, not for reasons of convenience. I believe that the trust system is flagrantly abused in that employees and officers put children on trust because it is the easiest way to do the work and not at all with the idea of the effect on the boy. It is flagrantly wrong to place a boy or a girl in a position of temptation without first estimating his weakness. The lazy, thoughtless, or incompetent employee is continually placing in jeopardy the beginnings of moral uprightness. Let it be known that trust is an educative and reformative agency first and above all, and, used thus, let there be no loss of faith in the efficacy of short mental steps and carefully placed moral trusts.

In the seventh place, there is less tendency to clannishness among moral and mental deficients than among normal children.

As a matter of fact, such lack of clannishness is what we might expect. The law of the gang is based on faithfulness to a supposed duty. It is in essence a moral law, not an immoral law, in that most of the adherents of the gang believe that it is right to protect fellows in any extremity and wrong to "snitch" under any circumstances.

It is the failure of deficients to respect even this law that occasions most of the defections from the gang in schools for deficients. The chance for personal safety or advantage is sufficient to outweigh the small conscientious scruples in betraying a fellow.

Let it be admitted at once, however, that there is a minority whose action in not cleaving to the gang is due to the belief that the duty to society is above the duty to the gang, a minority who appreciates the high duty of a citizen, large or small, old or young, to give witness and to give information that evil may be suppressed and society be protected. Such persons can hardly be called moral or mental deficients, and their cases may be omitted from our consideration. The fact that the regular class teacher should know is that she may prevent combinations and conspiracies among deficients of either kind, and that her own influence may outweigh the influence of leaders or of a beginning gang. Let the teacher build up the duty-to-society idea, and she may lead her pupils up through the province of the gang to the plane upon which lives the active free citizen among his respecting and confiding fellows.

In the eighth place, the power of suggestion and the value of its use is greater in proportion than among normal children.

We have found a marked decrease in attempts to escape since all conversation concerning escaping has been forbidden. We have found an increased respect for persons, for the rights of persons, and for authority since we have forbidden the use of all nicknames.

It is not enough that we eliminate harmful suggestions. I am convinced that the greatest advances possible in moral growth will be along the line of the utilization of the power of suggestion. It is being admitted that the better grade of men as employes is valuable largely because of the suggestion of good in a good man. I am strongly in favor of women in the work for the same reason. The value of carefully kept promises, clean back yards, as well as a clean campus, careful work in secluded places, as well as in the show spots, good pictures, tasteful buildings, neat uniforms, clean underclothing, good music, affable supervision, honest work for exhibitions—the value of all these things is in a large part the value of suggestion.

Finally, the teacher should know that beyond the imparting of instruction, mental and moral, there is a great advantage to be gained, the greatest probably, by the training of proper habits. It is certainly the business of the teacher to teach the suitable parts of the suitable studies, and to teach them in the right and most effective way. It is her business to see that everything in the school suggests the right and not at all the wrong. It is her duty to induce her pupils to measure their lives by high ideals. It is her additional duty to see that so far as the life of the pupil lies in her control his acts are in accord with these ideals.

High ideals are truly of the first importance, but, unless they are real working ideals, their value is soon lost. Many a man, many a boy and girl fixes his gaze on the mountain top in the distance, and never begins the climb of even the foothills. What is needed is not only the long-range ideal, but also the short-range ideal. Let there be the desire to be a Lincoln and Edison, a

Roosevelt, or a Florence Nightingale, but let there be minor goals all along the road. In some way let it be accomplished that each day's right living and right doing is the accomplishment of an ideal. Here it is that the teacher may start the child along the line and may see to it that for a time he follows it. And just as the power of suggestion is stronger with mental and moral deficients, so will there be a greater likelihood that the deficient will live along the lines suggested by his ideal and made easy by habit.

The two forces, the force of ideals, which is merely the force of a continual suggestion, and the force of habit, combined, will accomplish that object toward which we are all working, moral regeneration.

RECENT ADVANCES IN CHILD-STUDY

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From modest and rather feeble beginnings a score of years ago, child-study in its larger ranges occupies today the very center of the stage in both the theory and the practice of education. It is not too much to say that now he or she who commands its resources commands the chief attention when they speak or write, and usually say the decisive word when most great vital problems are discussed. From the first, it has been largely, though by no means entirely, an American project. But as it has spread to every civilized country, and as academic chairs, journals, and truly scientific literature devoted to it have increased, as its methods, at first crude and severely assailed, have grown complex and logical, and its chief results have been everywhere accepted, the voice of criticism has been silenced on the part of all who know it. Only a very few of the older leaders, and some who manage this greatest of all associations of teachers in the world, hold aloof and strive to maintain an attitude of detachment from it. But it has won at least the good-will of nearly all the younger and progressive minds in nearly all pedagogical fields; so that the future is now secured and we can see already the signs of a new danger—viz., that the results of child-study will be accepted prematurely and uncritically.

Like the revolution of Copernicus, from a geocentric and a heliocentric view of the world, so child-study has made men realize, as it had sadly come to need to realize, that the school is for the child and not the child for the school, and that everything from kindergarten to university must be plastic and subordinated to the nature and needs of childhood and youth.

Is it a question of hygiene, either general or special, of eyes, ears, nose, teeth, exercise, playgrounds, athletics, food, seats, light, heating, methods or matter of each topic in the curriculum, the best time of day and the best season for studying different topics, the recess question, juvenile crime, moral, industrial, aesthetic education, dancing, games, drawing, emotions, elimination up the grades, feminization, form of type and printed page of textbook, interest in culture stages, or even the larger question of race suicide or the supply of children, nursing, milk supply, defectives—it is in the bibliography of child-study that the pedagogic world even in remote, colonial lands, seeks guidance, information, and solution. Few really scholarly and helpful papers that have attracted general attention or exerted wide influence within the last few years have not been for the most part, consciously or unconsciously, based upon genetic data, that is, upon the empirical studies of childhood. The influence of this work is profoundly felt in several departments of medicine, particularly in the milder and contagious diseases of children and in the forms of adolescent and sex perversion. Some medical schools are even beginning to offer courses for the training of school physicians. This work is slowly revolutionizing the methods of religious training of the young in the various Sunday schools. Juvenile crime is now a specialty, and its library is the literature of child-study. Philology has found in the study of language of children a field fertile with new problems. And even the study of the human soul in the college and university is being slowly revolutionized. Genetic knowledge is the most perfect type of knowledge, and the best and only scientific definition of anything is a full description of its stages of growth. Insightful and ambitious students of education are now everywhere demanding this knowledge, as the best investment of time and money, to equip themselves for educational leadership.

This is the only science that teachers, by furnishing data, have materially contributed to create and advance. Thus it is in good part your work and you can do yet more for it if you will, for it was never advancing so fast as now and never in greater need of your aid. Careful laboratory work now summarized by Judd, and especially by Huey, has placed the question of textbook type and length of line on a scientific basis, with great economy for eyes, space, and cost. Lay, Neumann, Dewey, and Phillips have solved problems of elementary number-work and taken them out of the field of non-expert discussion. Stern and his school have formulated the norms of error and success in observational and object-lesson work. Thus too, in a dozen special studies, age curves for the reading interest of boys and girls are now plotted. Starbuch, Leubar, Dawson, and others have established important laws for the religious interests and capacities of the young. The manifold and profound changes of adolescence are now, to some extent, an open book to those who wish to read of them; and Crampton's new norms of psychological age have far-reaching practical applications in grading. Even the methods of history and geography are beginning to appear. The problem of measuring general ability, baffling as it is, already reveals at least some of its dimensions. In drawing, the way is pointed out very clearly, and where antiquated systems were not too firmly intrenched has wrought a wondrous change; and the same is true of school music. In moral education, perhaps the greatest and most important of all pedagogic questions, we see the way and lack only the courage to walk in it. We have formulated the rationale of plays and games, and new methods are already being put into operation in the great playground movement. Hodge in *Nature Study* and Jewell in *Juvenile*

Agricultural Education have blazed a well-graded pathway. Tanner, Kirkpatrick, Swift, O'Shea, and others have written texts that should be in every thoughtful teacher's hands. The founder of the juvenile court tells me that our literature has been the lamp to his feet. The dancing movement from the kindergarten to the university gymnasium is based on genetic principles and so is the children's theater, which is only the crest of the great dramatic wave now advancing over the world; and the story-tellers' league, with five-thousand members and branches in most cities, looks to child-study for its justification. The work of the society for moral prophylaxis, which seeks to prevent vice among the young and which was represented by the significant congress of Mannheim, the proceedings of which have recently appeared, rests on special, statistical studies of young men by Cohn and others, as to the prevalence of vice and venereal disease. In English and language-work, our norms are well defined, though as yet but little operative; in high-school physics, the last three textbooks mark a distinct new departure against the excessive, mathematical tendency that has steadily reduced the percentage taking this study during the last ten years. In the blind and calamitous high-school Latin cult, the faint beginnings of reaction to normality that reserves Latin for those who can go far enough to profit by it are discernible. English literature is still hag-ridden by philology, in our universitized high schools and colleges. In the training of Indians and Philippinos, we can point to the new pedagogy suggested by Coffin's study of the indigenous education of the lower races. In the feminization problem, child-study can only show what might, could, would, or should be done, but reform is yet impracticable; while in the vast and impending question of industrial education, we can only show a few preliminary studies on child-labor, etc. Here we are, so far, as powerless to suggest adequate steps to be taken as are all the others. In the training of blind, deaf, and subnormals, we have clear and consistent policies, methods, etc.

But child-study is vaster than all these applications to pedagogy. Teachers as such see but a small part ofi ts field; and even those who give their time to it now have to specialize in some portion of this large domain. Best of all, perhaps, we are working out the answer to the great question "What Is a Child?" We know that he is neither the congenitally depraved being Calvin thought, nor a Wordsworthian little deity trailing clouds of glory direct from heaven, all pure and good. We know that children are not so desirable as to be wanted in unlimited numbers, especially if they be the spawn of families like the Jukes; nor are they to be especially prevented by mothers who prefer society to the nursery. The child is first of all a bunch of keys, large and small, capable of unlocking most of the secrets of the entire history of life; a few of the keys are lost, some distorted, some locks are rusty or not yet found; but for science, the child is geologic ages older than the man. Adult traits of body and soul are novelties lately added, new and less substantial stories built on ancient foundations. Hence the child is not so much the father of man as is every remote, primitive ancestor. The human infant is a very unique specimen of human nature, a relic or memento of a past vastly older than recorded in history. Under the guidance of Mother Nature, he is climbing daily, at first with almost break-neck speed, up the uncounted rungs of the evolutionary ladder, the bottom of which rests deep in the protoplasm of the primitive sea, while its top touches the superman that is to be so much nobler than we are today. Thus science looks with new awe and reverence upon this candidate for humanity. The infant inherits not only scores of organs but as many instincts and feelings from a past older than man. It does or tries to do a little of about everything that all the creatures in its lines of descent did. This is the scientific side of child-study.

Third, it has certain general, practical lessons. It teaches that it is the duty of every healthful man and woman, with no special impediments, to marry and bear children and that betimes; that this is a duty that we owe the world and society, which is quite as imperative upon all those who are fit as it is to vote, pay taxes, or fight, if our country is in danger. Biologically, the chief end of man is to transmit the sacred torch of heredity, undimmed, to the future. Nothing is so worthy of love and reverence and service as the bodies and souls of the children who will people the earth when the fifteen million people now living, who are but a mere handful compared to those who are to spring from their loins, are dead. Again, we must everywhere study nature and get out of her way: take crying, it is about the only vigorous exercise possible to the child who cannot yet walk. It irrigates the whole body with blood, expands arteries, veins, heart, and lungs, develops the voice, helps digestion, polarizes the soul between pleasure and pain, and has its own physiology, psychology, and hygiene. Once more, nearly half the infants in this country do not creep naturally. They roll, hitch, and suffer many abnormalities from premature uprightness. Creeping is necessary to bring out the chest, throw back the shoulders, strengthen the larger muscles of the back and neck which hold up the head, to develop the arms, shoulders, hips, to put the digestive organs in their proper relations at that age. Again, nursing at the mother's breast is indispensable, even as an exercise for the lips, throat, palate, tongue, and fauces, all of which suffer arrest or perversion by the easy method of the bottle. Mother's milk contains everything which soul and body need for the first months, and neither cow's milk nor any prepared foods can take its place. Statistics from many lands show that infant mortality, which is increasing everywhere, is from four to six times as great among babes under one year of age, artificially fed, as among those breast fed. Röses' statistics show that the breast-fed child is heavier, taller, at every stage of life, lives longer, has better teeth, and that every three months of natural feeding adds immeasurably to all these quantities. Thus, in Germany, it is proposed to fine all mothers who can but will not nurse their offspring, up to five-hundred marks. The stature of the French soldiers has also been reduced from this cause, so that a witty writer represents *La Grande Nation* as saying "Suffer little children to come unto me and forbid them not for of such is the army of France." But there is time for only the merest glance at these vast themes. The world is going to think more deeply and speak more plainly upon problems that affect the future of the race. The child is the consummate flower of the cosmic process. Its quality is the best test of fatherhood and motherhood, for those are the best men and women who can produce and bring to fullest maturity of body and soul the most and best children. It is weakness to evade, and folly to dispute, this conclusion. It is the nucleus of the newest, highest, richest philosophy of life. The child is not a man or woman of reduced dimensions of body and soul, but is as a grub is to a butterfly, or an egg to a bird. Their prime need is to develop to the uttermost each of the stages through which they pass, and to be retarded more than accelerated; to linger in the paradise of the recapitulatory stages is the new ideal of liberal humanistic culture, which is that each should experience all the essentials that the race has experienced in its long pilgrimage upward.

WHAT ENGLAND IS DOING TO SECURE HEALTHY SCHOOL CHILDREN

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In England, more than in any other country in Christendom, it would seem that everyone must be driven to see that a nation's best asset is her men. For England has constantly to maintain three great armies: the one that in blue and scarlet and khaki fills the regiments at home and abroad and mans the ships of the Seven Seas; the one that in black coats administers the affairs of India, Egypt, South Africa, and the islands of the seas; and the one that in corduroy drives the factories and delves in the mines. For India alone, seventy thousand men in scarlet and sixty thousand in black must be sent out and constantly reinforced. And these must be the best the land can breed, for they must live scattered among a vast native population, where only steady nerves and strong muscles can be trusted to do the work. This army also leaves few descendants and they must be brought to England in babyhood if they are to grow up into vigorous men and women. We must also remember that where monogamy prevails each male lost means a female useless for futurity.

It was Claudian who, in the days of Roman decadence, sang: "For the harvest of men has failed." In any great empire you can train levies of native troops to fight, but they must be led and supported by forces from home. England has known this and yet she has been content to go on enormously extending her native empire, while the native population of Ireland—once a paradise for the recruiting sergeant—drifted over seas to run American politics; and while at home her yeoman farmers have steadily given way to scattered game keepers in preserves rented by American millionaires. The proletariat of East London, Manchester, and Liverpool is not of the stuff that rules empires.

And so one wonders that England so long failed to realize that her navies cannot be run without men; and that in India, as in Ireland, long occupation does not necessarily mean that the native population so loves its ruler that it can be trusted to go on alone. Still England has believed until yesterday, to use her own phrase, that she "would muddle through," and she has refused to consider seriously the problem of her future supply of men. Why is this?

All aristocratic governments have been built up in the beginning by leaders, who, in return for special services, have secured special privileges for themselves and for their descendants after them. With the passage of years, these special privileges are no longer justified by the national needs, and they are then maintained through the power of custom and the ignorance of the masses. Any inquiries that tend to awaken public interest in social and psychological questions are therefore dangerous to those in authority, and are frowned down or at least neglected. Some such reason as this must be sought to explain the fact that England still has no important department of sociology or experimental psychology in her higher institutions of learning, and that the people as a whole have, until very recently, had little or no interest in such investigations.

It is true that individual workers in England have long been distinguished for investigations in these lines. Francis Galton has spent a long lifetime in urging his countrymen to study themselves and the social conditions under which they live; recently he has given a fund to establish a chair of Eugenics in London University, and has been influential in initiating the new Sociological Society. Dr. Francis Warner has measured and studied thousands of children and through his writings and the work of the Childhood Society he has sought to awaken an interest in genetic studies. The British Child-Study Association, with its various branches, has been active; and the Royal Sanitary Institute has constantly appealed to the public. The Royal Family has steadily patronized the great hospitals until London has become a medical center second to none in Europe. And still the mass of people has remained until just now comparatively indifferent to sociological and psychological investigations.

Since 1870, however, the growing industrial competition of the educated democracies of Germany and the United States has filled English statesmen with apprehension. The South African war brought the nation face to face with disaster. Her best soldiers were defeated, captured, or shut up in towns like Ladysmith or Mafeking by a small number of energetic and capable Boers. Then she began to realize that we have passed the time when a nation can muddle through her difficulties.

As the result of this industrial and military awakening, great efforts are now being made to find the causes of national inefficiency and to remedy them. Throughout Great Britain the people have embarked on a series of important experiments. The great municipalities have bought lands and erected dwellings for the poor; when industrial plants have displaced dwellings their owners have been required to provide equal housing for the dispossessed tenants. Building laws have been made so severe that in some districts it has become difficult to erect houses that will meet the requirements. Food inspection has been made more rigorous; boards of health have been given added powers; municipal boroughs like Battersea have secured suitable milk for young children; while boards like that of Poplar have issued circulars to mothers on the proper care and treatment of infants.

The whole problem of physical efficiency was brought powerfully before the British mind by the Report of the Inter-Departmental Committee on Physical Deterioration, of 1904. This commission was composed of some of the most influential men in England. Its directions were broad and yet definite:

> It was to determine, with the aid of such council as the medical profession are able to give, the steps that should be taken to furnish the government and the nation at large with periodical data for an accurate comparative estimate of the health and physique of the people; to indicate generally the causes of such physical deterioration as does exist in certain classes; and to point out the means by which it can be most effectually diminished.

The committee held repeated meetings during a year and examined sixty-eight witnesses from all parts of the British Islands. These witnesses were medical men, anthropologists, representatives of charitable and other institutions, and members of Parliament. The committee embodied the results of its labors in an extended Report which is certainly one of the most important documents ever printed on the development of human beings.

While recognizing that there were no records of physical development from the past with which present conditions can be compared and that hence we can not determine whether the English race is deteriorating or not it still believes that the present conditions are such as to fill patriotic Englishmen with alarm. It recommends a thorough reorganization of the various agencies and societies at present working for improved conditions and lays especial emphasis upon the necessity for a comprehensive census of the English people along the lines of physical development. It feels that this could be begun by examining and recording measurements of the children in the state schools, of candidates for the army and for civil service appointments. Every school man should read the volume of this report in which the Committee summarizes its conclusion.

Meantime, in the state schools of England, medical inspectors had been employed for several years, and their duties had been steadily broadening. The reports of Dr. Kerr in London show how much this was needed. Writing in 1906, he says that the working co-operation of teachers is secured only in the minority of cases, and that some teachers meet the medical inspector as an inquisitor, and even object to his visits. On the other hand, a committee which reported to Parliament in 1905 speaks highly of the teachers' co-operation. The work has gone steadily forward, whatever the attitude of the teachers, and now twenty assistant medical officers give to the schools of London pretty thoro inspection. The following up of the cases, Dr. Kerr says, is still very imperfect as the parents in the poorer homes seldom attend to the warnings sent them.

Of 73,000 children recently examined in London, 11,000 were found verminous and many were suffering from skin diseases, such as ringworm. A staff of thirty-two district nurses is doing much to remedy these conditions, which most often occur in families where parents can not be forced to attend to their children except by appealing to the court. The condition of the teeth is lamentable; of 1,000 children examined by Dr. Marion Hunter, but two used toothbrushes; in spite of facilities which the hospitals furnish, only two in 6,000 had had any teeth filled. In two schools, containing 640 children, Dr. Hanson found 1,188 teeth needing filling and 1,161 that needed to be extracted. Where the recruiting officers reject the candidates of the army because of defective teeth, such a condition as this indicates a great national danger. The children in the English poorhouses have far better teeth than in homes of the poor, owing to efficient inspection and care.

As a result of this medical inspection in schools, public opinion has been aroused to a remarkable degree. Three years ago the school department of London declined a gift of five thousand pounds offered by an American resident in London to establish a center for the examination and measurement of school children; now the same board has established such a center from its own funds, and it will soon be in operation. The government report of 1905, already referred to, summing up the results of medical inspection, declares that it has produced comparative control over the spread of infectious diseases; that greater cleanliness and freedom from vermin have been secured, with a consequent improvement in the morale of the school. They say that more attention is given to defective children; that overstraining of the eyes has often been stopped, with the consequent disappearance of many headaches and much apparent stupidity; that some progress is being made with the more difficult question of defective hearing; that ventilation is better attended to; and that teachers are more interested in the physical welfare of the children.

But medical inspection in London, as elsewhere, opened up endless social problems lying at the back of inefficiency. Everywhere the inspectors found underfed children, whose ill-nourished bodies were hotbeds of disease. Englishmen are ready to see that if you do not put in coal you cannot get steam, and that a hungry child is poor material for education. And so an agitation for feeding children in the schools of the poorer districts sprang up. An Inter-Departmental Committee on Medical Inspection and Feeding of Children laid an influential report before parliament in November, 1905, and leaders as far apart in general politics as Sir John Gorst and Mr. MacNamara gave the movement vigorous support.

Looking to the experience of the Continent the leaders found that Berlin had fed necessitous school children for ten years with no appreciable increase in the number of applicants. The year before, she had expended $10,730, of which the city furnished only $730, the rest coming from charity. Vienna was furnishing a million school meals yearly, the city paying $17,750, and charity $6,500. Other Austro-Hungarian towns were doing the same work. Paris led in the movement, spending $200,000 annually to furnish between ten and eleven million meals, distributed by tickets which parents could buy or which the poor could have by asking. Italy appropriated $24,000 annually to buy food and clothes for school children; and Switzerland set aside one-tenth of her liquor revenue for the same purpose. Brussels spent $75,000 yearly for this work, and Sweden fed and clothed the needed children in her schools.

In the meantime, many of the English cities had been distributing meals to school children for several years, generally under the direction of charitable bodies, sometimes aided by the Poor Law guardians. Bradford, a city very advanced in social movements, had distributed meals for several years. In 1903, Leeds furnished 325,000 meals at an expense of $8,500; Hull, 215,000 meals, costing $5,000; Sheffield, 177,000 meals, costing $4,200; and York, 29,000 meals, costing $875.

Even with this experience, and continental example, England hesitated. She feared to weaken parental responsibility; and it seemed difficult to take this form of poor relief out of the hands of the Poor Law guardians without confusion; many of the teachers, too, objected to the added work at mealtime. In 1906, however, necessary legislation was passed enabling school authorities to administer charitable funds for this purpose and to supply money where necessary; but they must make the parents repay the cost of meals given to children where possible. During that year, Bradford distributed 48,000 school meals at an expense of $3,000 to the city, and only 250 meals were repaid by the parents.

But underfeeding was only one of the social ills that medical inspection brought to public notice. A prominent medical inspector told me that, in his judgment, bad shoes, in the damp climate in London, caused more disease than underfeeding. Overcrowding in homes, bad ventilation of houses, wretched clothing, and uncleanness have all received great attention of late. Local investigations, like those made in Dundee, have laid bare a mass of details touching these matters that has awakened wide unrest.

Defective children of all classes in the state schools have received a great deal of attention. Beginning in 1902, Leicester established special classes, and similar work was begun in London the following year. There are now in London alone some eighty centers for backward children, special schools for cripples, and eleven schools for the blind and twelve for the deaf. This work is under the direction of the school authorities, and in some cases they have established residential schools to meet special cases. In all parts of England today there is a very lively interest in the education of the defective classes.

Once awakened to a national need, England has unprecedented facilities for arousing public opinion. Her vast system of state schools, developed since 1870, gives her means on which we generally depend. English people are also habituated to recognizing and accepting able leadership. Parliament is still deeply respected; royal commissions, reporting to Parliament, have great prestige, and such a commission is now about to report on certain phases of inefficiency, especially connected with the feeble-minded. Another great commission is investigating the poor laws. The British Association for the Advancement of Science deeply influences all the thinking people in the world. England seems to be awakened, and, if she is, students of social problems connected with education will find England the greatest field for observation during the next few years.

But the administrative problem is herculean. The land must be restored to the people. At present 30,000 owners control the natural resources, including the land, used by nearly 50,000,000 inhabitants of the British Islands. Industries must be overhauled; young workers protected; and the great mass of older workers that is now scrapheaped, and that makes up a steady army of unemployed, must be provided for. An impending old-age pension act will help, but not remedy, this problem. Possibly England may be driven to abandon her long-established faith in free trade if she is to hold her markets against protected Germany, France, and America. Ireland must be settled and set to work. Great changes must take place in domestic affairs. A church, which represents only a fraction of the people, must cease to dictate the national policy on living issues. Training schools for teachers must be set to training modern teachers. Technical schools must be reorganized and strengthened. The municipal universities, like London, Manchester, Birmingham, and Leeds, must be enabled to do the work so long neglected by Oxford and Cambridge. The lower classes must be cleaned up, educated, and given hope.

Much of this work is now under way, and the strong growth of labor and socialist parties gives great hope for the future. Vested interests die hard, and old aristocracies are difficult to overthrow. But if she is to hold her empire, Great Britain must create wholesome and happy conditions for her workers, even if she has to accept wide-reaching socialistic principles to accomplish it.

THE STUDY OF EXCEPTIONAL CHILDREN

CHARLES A. A. J. MILLER, SUPERVISING PRINCIPAL, BALTIMORE, MD.

What constitutes an exceptional child? Classroom experience has shown that although there are not two children alike either mentally, manually, morally, or physically, yet there is an average child of average ability. The standard for this average may vary according to the individual teacher's conception of what is to be expected of a pupil coming to him for instruction. Most teachers, however, will agree that the average child takes fairly well to the subjects of the school curriculum, has some manual ability, is at times tardy, mischievous, talkative, disobedient, untruthful, and is occasionally indisposed. Every marked variation from this average, whether hereditary or accidental, marks an exceptional child.

CLASSIFICATION OF EXCEPTIONAL CHILDREN

1. The mentally bright of normal physical strength.
2. The mentally bright of less than normal strength.
3. Children of average ability or just below the average with exceptional will-power and ambition.
4. The mentally bright in language, literature and history, or music and drawing, yet almost deficient in a sense for mathematics.
5. The mentally slow, especially in regard to number or any subject involving pure reasoning, but of unusual manual ability.
6. Foreign children unacquainted with English, of average ability, much retarded for want of previous schooling.
7. The mentally dull and slow of splendid physique.
    - *a*) Children that impress the casual observer as bright, but almost completely lack any aptitude for school work, except perhaps some manual work.
    - *b*) Foreign children of certain nationalities.
    - *c*) Children of other than Caucasian stock.
8. Children of arrested mental development and the feeble-minded.
9. The mentally bright or dull with bodily afflictions that hinder them from being taught with other children.
    - *a*) Children with very imperfect sight, hearing, or voice.
    - *b*) Epileptics, certain children afflicted with chorea, consumptives.
    - *c*) Cripples that cannot come to school without assistance.
10. Moral defectives.
    - *a*) Children of uncontrollable tempers.
    - *b*) Children so quarrelsome and meddlesome as to make them unfit for the regular classroom.
    - *c*) The morally unclean.
    - *d*) Sporadic truants and inveterate late-comers.
    - *e*) Inveterate truants beyond the control of parents or guardians.
    - *f*) Children without any moral principles to which to appeal.

Exceptional children ought to have exceptional treatment. The validity of this statement is still hotly contested especially by such pedagogues, boards of education, and educational institutions as tenaciously cling to iron-clad curricula and methods. Public opinion, however, influenced by the comprehensive research-work of the pedagogical departments of our universities, the achievements of the leaders in special education and progressive school superintendents, and by the untiring efforts of mothers and high-minded women throughout the land, is beginning to demand special consideration for special children.

For years we have had with us the exceptionally mentally bright of normal or less than normal strength, the average child with exceptional ambition, the linguistically and artistically bright; but little was done for them. The exceptional of the exceptional of course forged ahead, made a name for their respective institutions of learning, and added lustre to the cause of education; and the dazzling brilliancy of such stars blinded the eyes of teachers and public alike to the many failures.

'Tis true here and there a great deal of attention was paid to individual scholars, but little of such conscientious work became known to the general public. The rule was that classes moved as wholes, and pupils, irrespective of special abilities or subnormalities, had to fulfill certain conditions before promotions could be obtained.

The first systematic effort to get away from this lockstep procedure in Baltimore was made by Mr. James H. Van Sickle. The various grades were divided into B and A divisions and where there were a number of classes of the same grade and division, these respective classes were again arranged according to working power—B, B2, B3, or A, A2, A3. In the secondary schools various courses were outlined from which those that enter have the privilege of choosing the courses to their individual tastes and abilities. All public-school children were very much benefited by these changes, especially those included in the first four divisions of my classification. It was thus made possible that certain children could do six years' work in five, but it was found that still more could be done for my first, third, and for certain ones of my fourth class of exceptional pupils that wished to take up a college course, or enter the Polytechnic Institute where no Latin is taught, or get some of the secondary school work in their elementary school course.

> At the end of the sixth school year, at about the age of twelve years, pupils who have done well up to that point may take up, in classes known as Preparatory Classes, the study of Latin and either French or German in addition to their other studies. The credits thus earned by pupils in the last two years of the elementary school are made a part of their high-school record, and count toward the high-school diploma.

Personally, I have been for five years connected with the work in these classes. I can positively state that much good has been accomplished. The work has been appreciated by the teachers of the secondary schools. The pupils have generally done well, a fair proportion extraordinarily well; a small number have failed to accomplish what had been expected. This last group has received my closest attention. In almost every instance of failure it became evident that the pupil ought not to have entered upon the special work. In a few instances failures were recorded in new lines of study at the high school, for which no direct preparation had been made in the special class. It was also brought to light that the exceptional ambition of the child in some instances was but that quality in the parent or guardian. Mr. Van Sickle's circular-letters regarding the work in these classes will give more detailed information. Similar work is done in Worcester, Mass., and Mannheim, Germany. A brief description of the Mannheim schools will be found on pp. 43–47 and 121–23 of *Bulletin No. 376*, Bureau of Education.

My fourth class of exceptional pupils fare well in the elementary schools and preparatory classes, fairly well in the secondary schools, but strike a rock at college or the university, if mathematics form a part of their course, as according to long-respected custom it will almost invariably do. There is no reason why a young man or woman whose mind will not take in higher mathematics—possibly due to some defect in the brain-center for mathematics—

should have extraordinary difficulties in getting a degree, or possibly fail to win this honor.

Now that manual training has been generally recognized as a legitimate part of the curriculum, the child mentally slow especially in regard to number or any subject involving pure reasoning, but of unusual manual ability, is receiving more consideration. A teacher of such a child should be careful that his talent for manual work be recognized and appreciated, both by himself and the class, just as much as the accomplishments of the quick cipherer, the ready talker, or the deep thinker. In promotion from grade to grade such a pupil should receive credit for his exceptional ability and due allowance be made for other shortcomings.

Foreign children of average ability unacquainted with English, if in sufficient numbers in any one school, should be taught in an ungraded class, if possible, by a teacher acquainted with the language of the foreigners. If such a teacher cannot be gotten at home, the board of education ought to find him elsewhere, even though a higher salary would have to be paid for such acquisition.

The mentally dull and slow include a large class of children partly American born, white or colored, and partly foreign born. For years I have been watching and studying these children. Most of them become factory hands, unskilled mechanics, laborers, and domestics. Now the great cry of sociologists, political ecnomists, and public orators is, "Dignify labor." How and where can "labor" be dignified better and more effectively than by the school and in the school?

Granted that the school is the best agent for accomplishing this noble end, it must also be admitted that due provisions be made whereby the school can fulfill the expectations of its patrons and the public. I therefore advocate that every large school have "industrial" or "domestic economy" classes where the mentally dull and slow of splendid physique are to be placed. I should change the course of study for these children so as to include all forms of manual work—namely, wood-work, gardening, light housework, cooking, baking, laundering, sewing, and crocheting; in short everything that is to be done in and round about the house. The children that had taken this course would really have an asset for future life of such worth as they could not have obtained even if they had stayed in school till eighteen and had received instruction in the usual branches. I believe that in this way the vexed servant question can be solved and with its solution there would be more and better homes with all their concomitant blessings. Personal experience has taught me that in our colored elementary schools not more than 25 per cent. of the pupils can hope to get the benefit to be derived from the ordinary school course for the higher grades. When in charge of about 2,000 colored children, I called attention to the fact that there ought to be two distinct courses for them, one the "common" for about 25 per cent., and the other an industrial or domestic economy course for the remaining 75 per cent. Since my severance with these schools, the colored high school makes provision for all kinds of industrial work in its course. I believe, however, that a still greater benefit will accrue both to the children and the public if the *elementary school* will be so constituted that industrial education can there be given to classes of pupils of whom it is indisputably known that their livelihood later on in life will have to be made by their hands.

Children of arrested mental development are generally detected in the kindergartens or in the lower grades. The rule used to be, "Keep them there till they graduate or freeze them out." There are still those that claim that the public school is not the place for these people. These opponents say, "Let the state teach the feeble-minded in separate institutions." But if the state has no institutions, or those that it has are full and have a waiting list, shall these unfortunates be neglected or chloroformed? Nay, the public school must and will provide for them. In some cities there are public day schools for the deaf and the dumb, for cripples that must be carried to school, and in Baltimore the Public School Board ordered that two special classes for epileptics be organized experimentally. It has fallen to my lot to observe the work in these classes. Three months after their organization I presented the following report to the superintendent:

The epileptics in our care up to date can be divided into three classes from the standpoint of ability: (1) The bright, (2) The mediocre, (3) The weak-minded.

The first class, the bright, of whom there are but few, take up all the school work as readily as the ordinary healthy child. The second, or mediocre class, upon whose minds the disease has made considerable inroads, are like children of arrested development; they gradually but very slowly take to the various studies and manual work and profit thereby. The third class are those whose minds have possibly been permanently weakened by the disease. Even these are educable.

We of course take the word educable in its widest sense and claim that we are succeeding if through our efforts in school we are effectually teaching our pupils: (1) The common school branches; (2) Manual work of some kind; (3) Obedience, attention, manliness, and fortitude, the acquisition of which is doing away with needless petting and humoring; (4) More correct habits pertaining to personal cleanliness, exercise, eating, drinking, sleeping, etc., the practice of which is producing better physical condition and greater cheerfulness and hopefulness.

The conclusion that we are compelled to draw from classroom experience in our work with epileptic children is, that they are educable; some are making marked progresss in the common branches, all are accomplishing something; all are doing well in their manual work which is tending toward a vocation that may be pursued at home, e. g., sewing, basket-making (later on we shall try cooking, housekeeping, willowbasketry, chair-caning, broom-making, modern cobbling). All are hopeful, cheerful, and growing in power of attention and concentration; some are establishing better personal habits and following to a limited extent rules of hygiene. In fine, the general progress is good.

Since the writing of these notes I have had three more months of observation and study. I now think that for some of the children the "common school branches" should not stand at the head of the list of desired acquisitions, that they should not be taught formally, but be gotten rather incidentally, as outgrowths of things done or made in the classroom, of games played in or out of doors, and of garden work. In fact the instruction should not—because to be good it cannot—follow any fixed course. Each child is a study and may form a class of one. Since this is the case there should not be more than ten in charge of one teacher. Furthermore, on account of the psychical and physical condition of these children and the nerve-straining intensive work to be done by their teachers, but one session of three hours should be held per day. The afternoon for the teacher is to be devoted to preparation of work for the next day and to necessary visiting of the homes of epileptics. To accomplish the greatest good the home must be in complete harmony with the school and this can be accomplished only by frequent visits for which those in charge must have time. At the home too, by skillful questioning, much valuable information as to heredity, parental idiosyncrasies, and family life and conditions, can be secured. This knowledge will influence the kind of treatment to be given in school—whether restraint or indulgence is to be resorted to; will give the instructor many valuable hints as to the nature of work to be given, and may lead him to call to his aid the officers of public or private charities. The value of home visiting is forcibly presented in *Bulletin No. 376*, Dep. Int. Bureau of Education. The highest aim of the teacher of epileptics should be to make these defectives self-supporting, or at least partially so; to give them opportunities for accomplishing simple enjoyable things, and to teach them to find satisfaction in them, be they ever so humble.

Consumptive children are to be found amongst the badly housed and poorly fed families in large and populous cities. If the state or private charitable institutions cannot take care of them the public school may be compelled to make provision for them. Dr. Buckler, of Baltimore, one of the school physicians, lately advocated a plan of building schoolhouses in or near the public parks. If such a plan were realized it would be very easy and inexpensive to have in such buildings a room or two for consumptives.

Moral defectives are represented everywhere. Whether such defect, caused by some brain-lesion, is due to heredity, temperament, or environment, matters not; it must be treated. Protection of the 98 or 99 per cent. generally morally whole demands some effective measure. Experience has taught that segregation of the bad certainly will remove the source of contamination from the good. But more than this not only the good are benefited, but there is every reason to believe that the defectives themselves are much improved and not infrequently cured. Opposition to the ungraded class of the disciplinary type is steadily weakening, because those who will must see that when the class is not too large—fifteen the maximum number, ten still better—when the room or rooms are properly equipped in respect to sunshine, light, air, furniture; when the teacher is of the missionary kind with plenty of determination: success does accompany the work.

Inveterate truants, of whom it is proven before court that their parents or guardians have lost control over them, are sent to the parental school, because a large city could hardly employ attendance officers enough daily to bring such wayward people to the ungraded classes scattered throughout the city.

I have briefly described to you ten classes of children more or less exceptional, found everywhere, to whom special care and attention are due on part of the public school, if it, as one of the factors of our civilization, is to accomplish successfully that for which it was instituted. Alone, however, it will not be able to succeed; certain foundation work must be effectively laid and continually strengthened by the home and the church whose special spheres of action it cannot and dare not enter upon.

DEPARTMENT OF SCIENCE INSTRUCTION

SECRETARY'S MINUTES

OFFICERS

President—IRVING O. PALMER, science master, Newton High School, Newtonville, Mass.
Vice-President—FRANK F. ALMY, professor of physics, Iowa College, Grinnell, Iowa.
Secretary—HENRY KERR, principal, Excelsior Union High School, Norwalk, Cal.

FIRST SESSION.—TUESDAY MORNING, JUNE 30, 1908

President Irving O. Palmer opened the sessions of the department at 9:30 o'clock in the Second Presbyterian Church of Cleveland.

In the absence of the secretary, the president appointed, as acting secretary, N. Henry Black, science master, Roxbury Latin School, Boston, Mass.

1. Topic: Geography.
   - *a*) "Home Geography"—Martha Krug Genthe, associate editor of the *Bulletin* of the American Geographical Society, Hartford, Conn.
   - *b*) "Geography in the Elementary School"—R. H. Whitbeck, supervisor in the Model School of the New Jersey State Normal School, Trenton, N. J.
     Discussion—led by W. N. Clifford, superintendent of schools, Council Bluffs, Iowa.
   - *c*) "Geography in the Secondary School"—George D. Hubbard, assistant professor of geology, Ohio State University, Columbus, Ohio.
     General Discussion—led by James F. Chamberlain, Department of Geography, State Normal School, Los Angeles, Cal.
2. Topic: Physics.
   - *a*) "The Function of the Demonstration Lecture in Secondary School Physics"—Robert A. Millikan, associate professor of physics in the University of Chicago, Chicago, Ill.
     Discussion—led by Franklin T. Jones, registrar and science teacher, University School, Cleveland, Ohio; N. Henry Black, science master, Roxbury Latin School, Boston, Mass.

On motion, the chairman was authorized to appoint the usual nominating committee.

The session then adjourned.

SECOND SESSION.—THURSDAY EVENING, JULY 2

President Palmer announced the nominating committee as follows:

Charles H. Smith, Chicago, Ill.
W. M. Butler, St. Louis, Mo.
H. W. LeSourd, Milton, Mass.

The program of the evening was as follows:

1. "Preservation of the Natural Resources of the United States," by Herbert A. Smith, editor of *The Forest Service*, U. S. Department of Agriculture, Washington, D. C.
2. "Scientific Agriculture in the Secondary Schools," by Liberty H. Bailey, director, New York State College of Agriculture, Cornell University, Ithaca, N. Y.

The nominating committee reported the following nominations:

For *President*—Otis W. Caldwell, assistant professor of botany, University of Chicago.
For *Vice-President*—Franklin T. Jones, University School, Cleveland, Ohio.
For *Secretary*—N. Henry Black, Roxbury Latin School, Boston, Mass.

The report was accepted and the nominees were elected as the officers of this department for the ensuing year.

Gilbert H. Trafton of New Jersey moved that the President appoint a committee of seven to consider what constitutes the fundamentals of a course in geography for secondary schools, and, if practicable, to outline such a course.

The motion was seconded and carried. The President later announced the appointment of the following committee:

James F. Chamberlain, *chairman*, professor of geography, State Normal School, Los Angeles, Cal.
R. H. Whitbeck, supervisor, Model School, State Normal School, Trenton, N. J.
Martha Krug Genthe, assistant editor of the *Bulletin of the American Geographical Society* and instructor in the Beacon School, Hartford, Conn.
W. H. Snyder, 116 West Avenue 53, Los Angeles, Cal.
W. L. W. Field, master in Milton Academy, Milton, Mass.
Mark Jefferson, professor of geography, State Normal College, Ypsilanti, Mich.
William C. Moore, head of Department of Education, Mt. Holyoke College, South Hadley, Mass.

On motion the President was authorized to appoint a Committee of Three to determine what scientific material can be found that would be useful in the Forest Service of the National Government. The President later announced the following committee:

W. N. Clifford, *chairman*, head of the Department of Commerce, Southern Manual Training Boys' High School, Philadelphia, Pa.
Clifton F. Hodge, professor of biology, Clark University, Worcester, Mass.
Frank A. Sheldon, science master, Volkmann School, Boston, Mass.

The Department then adjourned.

N. Henry Black
Acting Secretary

PAPERS AND DISCUSSIONS

HOME GEOGRAPHY

MARTHA KRUG GENTHE, OF THE BEACON SCHOOL, HARTFORD, CONN.

The name of home geography admits, perhaps, more different interpretations than any other subject of the public-school course. To some, it means elementary geography; to others, a general introduction into the sciences; to still others, object-lessons on a great many useful things which have no other relation to geography but their existence on the globe. Home geography is, in this respect, still suffering from the traditional misconception of geography itself—namely, that it is a receptacle for all kinds of disconnected information for which no other place can be found in the course of study. A lesson on cork, for instance, is not a lesson in geography; neither is a lesson on the manufacture of Bessemer steel, nor on the revolution in Russia. Yet I have seen these and many similar subjects enumerated on lists of geographical topics. No one will deny, of course, that geographical factors are at play in each of them; but the study of these things for their own sakes is botany, or technology, or sociology, not geography. Likewise, elementary nature-study is not elementary geography, or home geography as we call it, even tho the study of objects of nature forms part of it. The difference is that, in geography, these objects are not studied for their own sakes, but only as the material for geographical deductions. Not what things are, but where they are, constitutes the problem of geography and, as earliest impressions are also most lasting, the teacher of home geography ought to be especially careful lest his teaching give the pupil that erroneous conception of geography which I characterized above. This danger is especially great in home geography because the beginner possesses only a very limited amount of information about the things themselves, so that at first real object-lessons must be inserted between the purely geographical work. But in proportion as the child's general knowledge increases, the teacher's conscious efforts must tend more and more to eliminate that kind of teaching and make the lessons genuinely geographical. Every transgression into mere object-study carries with it the danger of mistaking the by-path for the main road and thus being led astray from the true goal.

If the final purpose of geography is the training of the pupil to find his way intelligently in any part of the globe, the purpose of home geography is the same in regard to his nearer surroundings.

What is necessary to reach this purpose? First, to become acquainted with the home by personal observation as far as possible; second, to acquire the ability to learn, from the observations of others, what we cannot learn from our own experience. Observation is therefore necessary at the beginning of every step that is going to widen the geographical horizon. The power to observe is more or less present in every child; but it needs careful training in order to reach its state of highest efficiency. The elements of such training, of course, are object-lessons pure and simple. The children must know the things themselves before studying where they are, and each one of the various stages of this course—the schoolroom, the school-grounds, the district, the town, etc.—must include a certain amount of work not strictly geographical, so that the children may know what they are talking about. It is certainly not a geographical statement that the blackboard is of wood, or that the crayon is white; but if the discussion is undertaken with a view finally to locate these things and to draw a diagram on which they are recorded, and on which the children can recognize the relative places of the objects, the digression is justified. If, on the other hand, we should indulge to enter into a discussion of the manufacture and uses of these objects, we should have sinned against the spirit of geography. Or, in studying the school-yard, we cannot help telling the children the names of the trees and flowers in it, so that they may be able to properly locate the same; but lessons in botany or horticulture would be out of place. We misuse the time allotted to us if we do not concentrate all our efforts in the endeavor to convey to the child an understanding of the characteristics and consequences of a given location, however interesting the rest may appear. It is the point of view that makes the difference; the point of view of the naturalist is essentially another than that of the geographer, even in treating the same subject. This the teacher should never forget.

For all these preliminary exercises, the relative locations, right, left, etc., will be perfectly sufficient. The names of the cardinal points need not be used before the children know, from actual observation, that the sun appears at a given place in the sky at a given time of the day. Such observations on sun, moon, and stars ought to be made between the regular classroom work whenever possible, and continued thruout the course. If we limit ourselves to telling the child that south, for instance, is where we see the sun at noon, it is just possible that one of them will look up to see; but ten to one the other ninety-nine will take the teacher's word for it and believe on authority what should have been acquired by observation. To believe is so easy, but to look and see for oneself requires an effort. Yet in elementary education, more than anywhere else, we should make it an iron rule for ourselves never to let words take the place of facts. It is for this reason, probably, that many competent educators wish that the true movements of the heavenly bodies shall never be spoken of to the child at this stage. The child's power of abstractive thinking is yet so undeveloped that if we force him to do what he cannot do, we educate intellectual hypocrites who pretend to understand when in fact they believe only. To understand the apparent movements of sun, moon, and stars is difficult enough; but it can be achieved by continuous careful observation. Let us be satisfied with this, as was humanity in its own childhood. Moreover, when the apparent movements are once well understood, and the child knows what he sees when he looks up to the sky, it takes comparatively little effort for the advanced pupil to realize the true stages of things, because the concrete knowledge makes the abstraction less formidable.

We cannot banish abstraction too rigidly from elementary teaching. Ambitious teachers often sin in this respect, because they think they must teach the child how to reason. They forget that reasoning is the privilege of those who know, and that conclusions and generalizations which are not based on a liberal amount of facts are merely self-deceit. The discovery of those abstractions which we call laws of nature has in every instance been the result of years of observation and experience, and it would be contradictory to all psychological and historical truth to deduct laws and generalizations, as it were, from the one or two things that the child knows. Let him open his eyes and see things, let him tell plainly and intelligently what he has seen, let him try visual reproduction by means of pen and pencil, and the rest will take care of itself. A child who says: "Cedar Hill is very high. It is so steep that we get very tired climbing it. It is harder to climb from Berlin than from Wethersfield, because it is steeper on the Berlin side. Therefore few people from Berlin go to Wethersfield, but the Wethersfielders used to cross the mountain, and settled the place where Berlin now stands. Nobody lives on the mountain because it is so high and there is no water on the top. It is only covered with wood"—such a child shows thereby as perfect a physiographic and ontographic understanding of mountains as can possibly be expected of one of his age, while one who recites from the textbook: "A hill is an elevation of the land," or: "Mountains are obstacles to traffic," may become a voluble talker, but his actual knowledge will never amount to much.

It is a sign of the times that in the attempt to raise the standard of elementary teaching many well-meaning reformers begin at the wrong end. They think to raise the quality of teaching means to introduce into it the methods of the university. This is a pardonable mistake, as long as the supply of professionally trained pedagogues is scanty among those who teach geography; a young graduate fresh from college understands teaching to be the inculcation into the minds of the young of the contents of his physiographic notebook; but all of us who bring to the work, not only the training of the geographer, but also that of the teacher, ought continually to protest against this nuisance, so that, if not entirely abated, it may at least be publicly known as the great obstacle to accurate and scientific work, in geography as well as in other branches. Reciting the results of other peoples' work is not science. The schoolboy who throws a stick into the brook to see what way it flows is a better scientist than the college graduate who has crammed a whole textbook full of physical geography only to forget every word after examination. Science is personal effort; science is honesty. Simply to appropriate the results of other people's efforts and believe them one's own property is not only unscientific; it is dishonesty toward oneself.

In the last decade the working-out of geographical types has become a great favorite among geographers, with the result that some schoolbooks fairly teem with types. The child who opens his home geography finds therein, almost as the first thing, a "typical" farmhouse, a "typical" village street, a "typical" valley, etc. What in the world does "typical" mean to a child who just begins his studies? Does anyone who thus flings types at the children's heads realize what it means to establish a type? This always reminds me of a young German friend who, after having been visiting with me less than a week, characterized everything new that she saw here as "typically American." I suppose she, too, was brought up on a "typical" textbook.

I do not want to depreciate any of my fellow-workers. But facts are facts. The proper thing to do is to look for the causes and try to find a remedy. The cause is plain enough. Home geography is an individual course for every single town, and as long as we have not as many different textbooks as there are towns, those in use must make a "typical" concoction of everything that might possibly apply to any one place, and just like a political speech that is intended to win the Democrats without estranging the Republicans, the result is neither black nor white, but a brew devoid of color and taste, unfit for any human intelligence to swallow. There will be no permanent change in these conditions until every town in the country shall have had a devoted teacher of geographical and pedagogical training, one to whom his work would be, not a job, but a mission, who would settle down there and spend a lifetime in becoming so one with the place that he could write a home geography of it. This is the means, by the way, by which the German schools have their fine home geographies. For there is not any one royal road, nor any one scheme or system that will work in one place as well as in another. In a hilly country the course must be different from one given on the plains, and again different in a shore town. The technical system has little or no place in home geography. System, here, is the logical sequence of observations which the local conditions render possible. It is not until the observational training has opened the children's eyes to the characteristics of the concrete objects that they will be able to realize, by association and synthesis, that which they cannot see with their physical vision. To a child who has seen the streams near his home all run down hill the laws governing running water will be more than mere words. Even then, however, generalizations should always be supported by facts observed or read about. If that is so, words may be wisely used to create for the mental eye pictures which the physical one cannot see: then the student will be ready to utilize observations made by others without merely copying their results, for he has observations of his own to connect with them. There are two ways in which observations made by others are accessible to the pupil: the spoken or written word, and the map. Just as, after recording his own observations for some time, the student will be ready to use intelligently the observations of others recorded in words, so he will, if his ramblings about the home have been put down in the form of diagrams and maps, be able to use a simple map. The topographical map is out of the question in this stage but the reading of simple maps should be exacted. The ability to find his way to an unknown part of the town by means of a plan or diagram should have been secured now, and likewise the beginning of the map-habit in reading.

How far the political aspect of geography should be considered here is a question on which hardly two people agree. The negative is easiest to state: when political and natural divisions are not identical, the latter should predominate, in the beginning at least. For practical purposes, the political divisions cannot be ignored; but even then their coincidence with physiographic ones, or their divergence from them, ought to be especially emphasized. Especially in the eastern states and in European geography the evolution of the political boundaries forms most interesting chapters in anthropogeography and contains a great deal that is intelligible and interesting even to a young child. So is the origin of place-names. So are the foundations of government. All this, as far as any geographic conditionality can be noticed therein, comes within the range of home geography. It will not only enlarge the child's knowledge but, by the genuine interest which similar work creates, it will contribute to endear his home to the child. He will love the spot of earth which he makes his home because he knows it. We cannot love what we do not know. If these instructions are given in the proper spirit, we shall certainly see the day when true patriotism will no longer be measured by the number of superlatives that a person uses in describing his home country or state: the greatest, the biggest, the best ever. Who are we that we should dare to make such sweeping statements, and to teach the children to make them? Are we the only people endowed with superior wisdom that we should be able to appreciate all the different countries with equal justice and decide which is the best? True patriotism, like true courage, is not magniloquent. True patriotism, like true love, loves because it understands. It is not blind to the shortcomings of the beloved one; but it understands their sources and feels that they, too, contribute to make up this very individuality that is dear to us. So it is with true patriotism. We feel that, for ourselves personally, our home is the best, with which no other can compare; but this does not mean that it is the absolutely best. Says Byron: "England, with all thy faults I love thee still." True patriotism is not flag-waving; it is honest appreciation and faithful service. We see the lights and the shadows of the picture; we do not overexalt it for the one, nor condemn it for the other, because we understand that it had to be just so and not otherwise; but we promise to ourselves to contribute while we live that the former shall become brighter and brighter, and the latter, lesser and lesser. With such a standpoint, we shall be able also to be more just with regard to other countries; they cease to be rivals of our own which we must belittle, because this country, being ours, cannot have any rivals; but they have their lights and shadows as we have, and we have no right to exalt ourselves unduly. All this can be taught to the young by a scientific, conscientious, and patriotic teacher of geography, not excepting home geography. Phrases confound, but facts convince.

GEOGRAPHY IN THE ELEMENTARY SCHOOLS

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All pupils in the elementary schools are required to study geography because it is regarded as a necessary part of even an ordinary education. It is not put into the schools chiefly to train the imagination, the observation, or the reason. If intelligently taught, it ought to do, and does do, all of these. This training of the imagination, observation, and reason is an inevitable product of the whole educative process. We do not need to make the attainment of culture a conscious aim in teaching geography. The pursuit of knowledge in any legitimate field gives training. It should be our aim to teach sane and sensible geography, and the mental culture will take care of itself.

I am persuaded that the immediate aim in the teaching of *elementary* geography is to give pupils intelligence about geographical matters: about the earth, the countries into which man has divided it, the great cities which he has built, the various peoples which inhabit the lands, the geographical conditions under which they live, the great industries which they carry on; all this with a constant use of the question "Where?" and a frequent consideration of "Why?" In the very nature of the subject-matter, comparatively few of the facts of general geography can be learned by observation on the part of the pupil, and very little can be reasoned out by children between nine and fourteen years of age. In the end, it will be found that the major part of our fund of geographical knowledge has been learned from others and has become a matter of memory. It seems to have been the fashion in the recent past to belittle the memory and its work, and to consider memorizing of facts as antiquated. There was good reason for criticism of the older education because of too much memorizing and too little thinking. Yet the criticism has carried us far in the other direction. The memory is a highly useful faculty. Any theory of geography-teaching which ignores this will lead to grievous error. And this implies no disparagement of observational and rational work. The more of such work we can do within sane limits, the better. But we must not blind ourselves to the fact that most of our knowledge of the world beyond our horizon, that knowledge which goes to make the well-informed man, is a matter of memory. Of course this does not mean mere mechanical, unthinking memory.

Geography, as a study in the school curriculum, has a distinct responsibility. There is a body of knowledge which every grammar-school graduate is expected to possess, and which geography, and no other study, is held responsible for furnishing. This body of knowledge is largely made up of facts about the more important countries, and parts of our own country, and about the activities of the people who dwell there. The danger lies in the tendency to teach too many facts, to teach a host of mere details, and to make little distinction between things of very large importance and things of only incidental and passing importance. I believe that one of the greatest services that a superintendent can do for the cause of good geography-teaching is to provide his teachers with a carefully made syllabus of the things which are to be emphasized, to be drilled and reviewed in their respective grades. This list will form scarcely a fourth of the things which will be taught, but the things in this list ought to be taught so that they will stick. This list will contain the things which are *to be known*. The other and larger list consists of the things which are *to have been known*.

My first thesis, then, is this:

The primary aim in teaching elementary geography is to give geographical intelligence; to teach facts that are likely to be useful in practical life; to differentiate between things which are fundamental and those which are only incidental, and so to impress the fundamental that they shall become a permanent possession of the pupil.

Is a knowledge of "Where?" an essential or an incidental aim in the study of geography?

In the days of our boyhood, the "where" was given much emphasis, too much. Too many places were located. The mistake became apparent and in correcting it, some of us went as far in the opposite direction. The textbook which initiated the reform placed great emphasis upon physiography, and very little upon the study of location. That book started a reform but it upset geography-teaching in many places, and those teachers who followed it sent up to the high schools a lot of pupils who knew about highlands and lowlands, divides, drainage basins, agents of waste, and physiographic processes generally, but who could not tell whether Liverpool is in England or in the Crimea.

Let us be sane. There unquestionably are a number of countries, rivers, mountains, bodies of water, and cities, which every intelligent person ought to know the approximate location of. The list is not so long as to be burdensome. There is greater danger of making it too long than of making it too short. But, having decided upon what ones are to be located "for keeps," these ought to be taught and taught thoroly. I believe that every course of study in geography ought to give minimum lists of countries, cities, rivers, mountains, etc., a knowledge of whose location is to be insisted upon. Those which figure most in the world's affairs and hence appear oftenest in the public press ought, as a rule, to receive the emphasis. One of the best geography teachers that I know has a set of home-made wall charts upon which are lists of cities of North America, cities of Europe, rivers of the world, etc., which she from time to time places before her classes for rapid review. It takes three to five minutes to run thru one of these lists, and it is time well spent. I note that pupils who have been thru this teacher's classes can usually be relied upon in the high school to show intelligence in locating places whose names arise in later studies. I cannot dissuade myself from the belief that one of the very things that geography is for is the teaching and impressing of this knowledge of location. I cannot escape the feeling that map-study and a considerable amount of map-drawing and rapid sketching are two of the highly valuable forms of geographic work. It is this study of maps, this working over maps, that prints them on the mind and enables the person, years later, to visualize them and see, when he desires to recall them, places in their relative positions. Maps, to serve this purpose, need to be simple and clear, not covered with a multitude of names.

My second thesis is:

The study of location, within sane limits, is an essential, not an incidental, aim in elementary geography.

To what extent should the purely physical side of geography be taught in the elementary grades?

Following the report of the Committee of Ten, a reform movement in geography-teaching spread over the country. This new geography placed much emphasis upon the purely physical side of the subject. The pioneer textbook of the new movement had a tremendous sale. It contained page upon page of text describing in considerable detail the various mountain ranges of the world; treating of the steepness of the slopes, width of valleys, shape of peaks, hardness or softness of rocks, snow-covering, glaciers, drainage, and much more of the same nature. This kind of treatment was not confined to North America but was carried to all of the grand divisions. As nearly as I can compute it, about 26 per cent. of the text of that book is devoted to general principles of physical and mathematical geography, and 42 per cent. more to the physiography of the continents. Thus, about two-thirds of the book is physical geography in which man and his work has only an incidental reference here and there. The plain fact is, that sort of geography does not appeal to children. It is dead, dreary, meaningless description, far removed from the kind of world in which children live. The mistake was soon discovered. The book was revised. The 42 per cent. of text dealing with the physiography of the grand divisions was so thoroly removed or disguised that it shrank to 5 per cent. The proportion of space devoted to political and human geography was doubled. The political and commercial maps which, in the first book, were relegated to the rear, came back to their proper places in the revised book. Every year or two since, a new series of elementary school geographies has come forward. None of them has gone back to the type of textbook of twenty-five years ago and none has repeated the mistake of this pioneer book in the new movement. The tendency is plainly away from the overemphasis of the purely physical, toward a greater emphasis upon the human side of the subject—man and his work. This is not because the facts of physical geography are less important than formerly, or because they are not an integral part of the subject. It is because children are not interested in such facts unless they are closely associated with the lives and doings of people. We are recognizing this and we are not teaching so much about primary and secondary lowlands but more about the people who dwell there, and how their lives are influenced by the mountains, or the valleys, in which they live and work and play and build cities. A physiographic basis in general geography is desirable, but in the elementary school there must be a constant association of the human activities with the physical conditions.

My third thesis is:

The bare facts of physical geography do not appeal to children, because not within the realm of their natural interests. Physiographic facts, as a rule, should be associated with their consequences as seen in the lives and doings of the people.

To what extent is it wise to emphasize causal relations in the grades?

The causal idea is unquestionably the keynote of modern geography. It is evident in all of the recent textbooks. It has come to stay and I believe it is welcome. The question is not "Shall we teach causal relations," but "How much shall we try to teach?" That depends upon another consideration—namely, How far are young children able really to grasp the meaning of geographical causes? It is one thing for a teacher to formulate statements of the causes which have promoted the growth of Cleveland or of London, and to teach the pupils to repeat those statements, and quite another thing to be sure that children comprehend them. Memorizing and reciting reasons which another person has deduced is not reasoning. Children who have learned from a book or from a teacher the reasons for the remarkable industrial growth of Germany may be as truly memorizing as those who learn the capitals of the states. Yet, it may be equally true that they have memorized a kind of facts which are exceedingly useful *in developing the power to* *reason*, and exceedingly useful *in developing the attitude of mind which seeks to know reasons*. This, in my judgment, is the virtue of the modern treatment of geography. Not that pupils actually reason out effects from causes, tho they may sometimes do this, but that the causal treatment tends to cultivate a cause-seeking frame of mind toward geography. The desire to know *why* is in the child, and it may be utilized to advantage, for there is no doubt that the teaching of many of the simpler causes, which help to explain why things are as they are, is a distinct educational gain. Yet there are a lot of things in geography that are worth knowing, but whose explanations are difficult and complicated. In such cases teach the fact and let the cause wait.

It is only a commonplace to say that the amount of emphasis to be laid upon the causal side increases with the age of the pupils. With fourth- and fifth-grade children, *very little* of this is practicable; in the seventh and eighth grades more is practicable, providing only simple causes are introduced and they in the vocabulary of the child. Mill, in the *International Geography*, takes the ground that elementary geography should deal mostly with facts, and college geography with causes and relations. My knowledge of geography-teaching in this country, however, does not lead me to fear that too much of the rational element is being introduced. The opposite is probably true. Enough of the cause-and-effect idea should be introduced to create in the mind of the learner the feeling that there are pretty definite geography reasons for such facts as the location and growth of cities, for the kind of industries followed in a region or country, for the routes taken by railways, or for the character of our trade with Great Britain, Brazil, or other countries. We are as much after an attitude of mind as after actual knowledge of causes.

Thesis four:

Children in the grades are too young to do much original reasoning in geography. Simple causes and their effects should now and then be pointed out in order that pupils shall form the habit of at least mentally asking "why?" The primary aim in the grades, however, is to learn facts rather than reasons.

Is there any good reason for laying special emphasis on commercial geography?

A few years ago, there was a notable awakening of interest in physical geography in the high schools. That wave has been followed by a similar, though smaller, wave of interest in commercial geography. There is a present tendency toward emphasizing commercial studies. The spirit of the age encourages it. The danger, however, lies in reducing the study to a memorizing of encyclopedic matter, more or less statistical, and hence ever changing. There are hundreds of articles which enter into commerce. Many of these are, or may be, produced in dozens of places. The difficulty lies in knowing where to draw the line on the number of commercial products to be studied, and the number of producing regions to be enumerated for each. The inevitable tendency is to teach too many, to load the memory with a multitude of details many of which are mere lumber, affording little educational return in either the getting or in the having. Yet, I am disposed to believe that, if children were required to decide between learning pages about commercial products, their sources, markets, and methods of production, or pages about mountain-slopes, divides, drainage-basins, and general topography, they would choose the former. It has more of human interest, and appears more useful, whether it is or not. The commercial phase of elementary geography is important, but the multiplication of details defeats the very ends which we are seeking to attain. The commercial products which enter into our foreign trade are legion, but those which deserve attention in the grammar grades are comparatively few. One might teach ten or more agricultural products of France, a dozen important products of her mills, and as many more items which she buys in quantity from us. He might do the same for Germany, the United Kingdom, and many other countries. No one defends such teaching, yet our textbooks and our teachers are constantly tending toward such a practice. It is difficult not to do so. And here is one of the places where the course of study can be of genuine service by supplying maximum and minimum lists of commercial products, exports, etc., of any particular country, and specifying what ones are worthy of mere mention, and the one, two, or three, which ought be emphasized.

Thesis five:

The facts of commercial geography appeal to the pupil as being useful, and hence are welcomed by him. To counteract the teacher's tendency to multiply details, the course of study ought to distinguish between items that may be properly mentioned and those which are of large importance in the commerce of the world.

In conclusion, may I enter a plea for the recognition of the following ideas in the teaching of elementary geography:

(1) The need of sifting of the vast amount of geographical material which might be taught, and the preparation of a syllabus which shall outline a limited body of facts that inherently deserve emphasis.

(2) Such a selection of material having been made, that both teachers and pupils be held rigidly responsible for the thoro teaching and knowing of this body of essential knowledge. Local needs and personal preferences of teachers may guide in selecting the rest of the things to be taught.

(3) The value of studying maps and making maps, to the end that clear mental pictures of these may be impressed and may remain, to serve their owner a thousand times in later life.

(4) The limiting of the amount of attention given to pure physiography and the relating of that which is taught to the life-conditions; delaying to the end of the grammar-school course most of the treatment of mathematical geography and the scientific discussion of the winds; a reduction of the list of productions, manufactures, exports, etc., usually given in textbooks.

(5) The introduction of enough of the cause-and-effect idea to create in the pupil the habit of thinking that behind the facts of geography always lie the

causes, even though he may not at present know those causes; and at the same time a recognition by teachers of the truth that the grammar-school age is the time for learning facts rather than for groping after reasons which only adults can appreciate.

(6) The need of remembering that, however valuable the stereoscope, stereopticon, and geographical museum may be as auxiliaries—and they are valuable—yet they supplement, not supplant, textbook study, oral recitation, review, and drill along the old lines.

DISCUSSION

W. N. Clifford, superintendent of schools, Council Bluffs, Iowa.—I have been very much interested in the papers which have just been read on "Home Geography" and "Geography in the Elementary School." There is no doubt whatever in the mind of anyone who is interested in the study or teaching of geography that too much attention has been given to the countries far and remote and too little attention to home geography. The teachers are not entirely to blame for this. Subject-matter on home geography is very hard to get.

I live on the Missouri River in Iowa and I know how difficult it is to get descriptive matter on the city, county, and state which is suitable to put into the hands of pupils. Even subject-matter for the teacher is not abundant. Hence, many teachers give their pupils the primary geography simply because it is easy to obtain. But home-geography material is becoming available and teachers will do better work in this subject in the next few years as they are alive to the importance of it.

The paper just read is full of helpful suggestions and calls attention to some of the primary aims in teaching geography. The one which I wish to emphasize especially is the importance of the study of industries in connection with grammar-school geography. This is what may properly be termed "Elementary Commercial Geography."

It has been my privilege to give some attention to this subject. I have felt that many places on the map did not mean much more to children than a mere spot and that the real life ought to be studied by visiting these places, if possible; if not, at least by collecting samples of the different industries for careful study. Take, for instance, the sugar industry; how little children know of the real life of the South where our sugar-cane is produced. How meager is their knowledge in regard to the beet-growing states, and then add to this the scanty knowledge of the New England states in which the maple sugar is found.

Children see the finished product. How much more alive their interest would be in the different parts of the United States if they could trace the sugar story in its entirety.

It was my privilege some years ago to take to Louisiana a party from Council Bluffs who were teaching the United States in geography, to study the sugar-cane industry at first hand, collecting samples of the cane and bottled specimens of all the processes thru to the finished product. Later it was my privilege to go to Brooklyn, New York, and get samples of the refined products. At another time a trip was made to Nebraska to trace the study of the beet-sugar industry. Adding to this the maple sugar and honey, the full story of sweet as furnished from the different sources was presented to the children.

This information was given thru descriptions, both oral and written, thru bottled specimens from the raw to the manufactured product, thru stereoscopic pictures and lantern slides describing the different processes, and the result was more than satisfactory. Upon visiting one of the classes after the story had been worked out, the question was asked of the class as a whole, "What do you find to be the value of this study?" A girl of twelve years raised her hand and said, "Grand Island, Nebraska, is a real place to me now because they have a beet-sugar factory."

One other point mentioned in the paper just read to which I wish to call your attention: that is, the danger of spending too much time teaching the mere location of places. An attempt has been made during the past year in our schools at Council Bluffs to pick out a few important cities and work out more in detail the information that is available about them. Take Boston, for instance; trace its early settlement and development, from colonial times until the present, when it now stands as the leading city of historical importance, one of the most important cities commercially, and a great intellectual and social center.

The use of post cards has been a great aid to us in this work. A sufficient number of sets has been procured so that each pupil in the class is provided with a picture of the important places. A visit to Old North Church and a set of post cards tracing the route of Paul Revere out thru Concord has helped very much in the teaching of both history and geography.

I do not want to overemphasize the study of the industries in the schools, and I do want to emphasize all the geography in regard to position and place that has ever been taught, and then try to give the children an idea instead of a word, a concrete thought instead of an abstract one in regard to places. We hail with joy the progress that is being made in this study, and no good system of schools can be said to be well equipped at the present time without having in addition to a good library of geography, a fine collection of mounted pictures, sets of post cards, stereoscopes and stereographs, lanterns and lantern slides.

In addition to the above equipment, collections of the different industries from the raw to the manufactured product ought to be found in every school.

GEOGRAPHY IN THE SECONDARY SCHOOLS

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The report of the Committee of Ten which gave us so many suggestions concerning courses in geography, geology, and meteorology in secondary schools is now about fifteen years old. Some of it is still serviceable, some we have outgrown. Since the issue of that report many papers and not a few books have been produced which carry suggestions valuable to teachers of geography in high schools. I think I recognize their various positions and feel the importance of what they have said, yet you will pardon me if I make but few references to this literature but speak for myself. I do not wish to claim originality because much that is in my mind is there in consequence of my contact with my fellow-teachers and coworkers in the field of the science of geography.[1]

At present in our secondary schools we are giving physical geography or physiography, often very satisfactorily, to pupils in science and literary courses; commercial geography to pupils in the business course, and occasionally geology and meteorology as electives. In the large majority of schools each course above named is "completed" in a half-year. Of the two electives, the latter is coming and the former is going. This is right. Geology, altho tried for a dozen years or more, has not gained a footing in the schools, and might now well be laid aside except where special local conditions make its presentation very desirable. But meteorology in an elementary form may profitably be retained and pushed simply as an elective in the third or fourth year. Some day its real utility will be more fully recognized, and then we can give it a better place.

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[1] After this paper had taken shape the March and April, 1908, numbers of the *Journal of Geography* came to hand with a valuable symposium on "Secondary School Geography." If this symposium is at all representative there is much interest and thought now being given to the subject.

But we ought to go farther in secondary geography. There should be a course in what may be called general or regional geography, the comparative geography of Ritter, but not that of Markham in *Britannica;* a geography that outlines the main physiographic regions of the earth, studies their physical features and conditions, and their human distributions and occupations, but is specially concerned with the simple and complex relations existing between these physical and human elements. Such a course could well be extended to cover one or even two years in the upper part of the high-school curriculum.

By extending the physical geography in the better high schools to cover all the first year, required, and regional geography to occupy a place in the second or third, or even both years, required, with meteorology and commercial geography—not commerce and not statistics—electives, in either of the upper years there could be made a course of much practical value, of real cultural worth, and of scholastic interest, and one comparable in all three respects with the four years of Latin or three to four years of history.

There are now some points to be made in favor of such a course as this, some answers to be made to arguments raised against it, and a few comments to be made on the constitution of the course.

First, other studies consist of a series of sub-topics and cover a number of years as is here proposed for geography, thus avoiding the superficial study of a host of short courses by substituting for them one connected series of studies in one broad field. For example, mathematics under three or four subjects runs thru three or four years. History can be taken three years, biologic science at least two, Latin and English each four years, and other languages two or three years each. The proposition here is to give to geography a similar place.

Second, when one takes account of the training in observation, description, analysis, classification, and synthesis, the comparison, argumentation, and reasoning involved in these geography courses, he must grant that for discipline and broadening culture there is certainly nothing much better. And a course of study that lays before the student in the proper way the condition of the people, their occupations, and their interests; and shows the reasons therefor, in so far as they have been due to the influence of physiography, climate, resources, or position, will undoubtedly elicit in the pupil a healthy appreciation of the reality of peoples in other lands and a toleration for their peculiarities. And then, as he works out the reasons for the production of various articles in special places, and finds that each is produced in conditions to which it is best adapted, and comes to minister to our well-being, by routes carefully adjusted to geographic conditions, he will, it seems to me, be bound to grasp a broad conception of the world and to learn fundamental lessons in inter-dependence and independence; and ultimately to develop the spirit of true citizenship and pride in his own country.

Third, the average adult of today would use, if he had it, a knowledge of the regions of the world, their physiography, climate, industries, products, and the actual life of their peoples; and this liberal knowledge of geography is needed in reading current events, in business, in travel, and in social intercourse. It is of nearly as universal use as the English and mathematics taught in high schools, without both of which one should never think of graduating. These three preceding points show clearly that geography cannot consistently be an elective in the high-school curriculum.

Fourth, some of those in best positions to know tell us that culture and discipline acquired in one field do not necessarily make one stronger for work in another. Then by all means the culture should come in studies which have a practical bearing on the work the student is subsequently to do, for by this means it is possible for him to obtain both the discipline and the information with one effort, and both in lines which he will subsequently follow or find use for. Geography has both a cultural and a utilitarian value and every pupil should have a chance to realize both. But the real disciplinary value of any course rests largely with the teacher. After all, geography is important, first, for knowledge, second, for training. In physical geography, one acquires knowledge, learns methods of getting knowledge, and discusses and compares features and processes and in the doing comes the training and culture. Regional geography furnishes the best practice in synthesis; in fact, after its informational value, its chief strength lies in the fact that its method is essentially synthetic.

Fifth, thousands of our high-school pupils go out every year into teaching positions in the grades and in ungraded schools. They have been able to get higher training than they essay to give in English, mathematics, drawing, history, and language in their high-school course, and I see no valid reason why they should not have equal opportunities in geography.

While I am dealing with the teachers, a little more should be said. There should be better training for teachers of geography below the high school; and the high school and normal school are about the only places to which these prospective teachers go, hence there should be those in schools of these classes who can teach geography better. Some of the secondary-school teachers of physical geography have learned to recognize the features and processes described in the texts, but my experience has convinced me that many teachers in secondary schools do not know in the field the features they can describe in the words of the text. I have known two college professors who were trying to teach physiography and physiographic geology who did not know many of the forms in the field or on the maps. Think of a Latin teacher who did not know an ablative absolute or a gerund! We cannot expect good laboratory and field-teaching when the teachers do not know the forms either in the field or on the map, and we certainly cannot expect those who go into teaching positions out of the secondary and normal schools to be able to do good laboratory teaching and most valuable field-work, when their teachers know how to give neither. We need, I say, all along the line, teachers better trained in geography and physical geography and especially in laboratory and observation phases.

Sixth, as a collateral study of history and economics, or a basis for further study or practice in these two lines or in politics; commerce, and business, no course is more thoroly adapted. Multitudes of our high-school boys are going into business with no further training than that signified by the high-school diploma, and they will find geography more practical than some other courses they now take.

Certain objections will be raised to the extension of present courses in, or the introduction of new courses into, the high-school curriculum. One of these is the excuse that there is not room for anything more in the high-school courses. I can see that they are crowded; but I verily believe that there is room for the things of greatest value to the pupils; and I further believe it has been shown that in importance geography is, at least, one of the first four or five subjects. Some less valuable subjects might be made electives, or eliminated.

Another argument raised against high-school geography is that it carries no college-entrance credit. In reply it may be said: (1) the secondary schools have no business to build their courses primarily for prospective college students, but for the highest good of the largest number, the 85 to 90 per cent. who enter life's productive enterprises direct from the high schools; and (2) the colleges should credit training and experience, not necessarily zoölogy, history, and Latin. If equally well taught, one language is about as good as another and one science as preparatory as another. The university should be rational enough to see that the function of the high school is not to prepare for college but for life, and, after specifying a few units out of the fifteen or sixteen, should expect to take freshmen with a minimum of training rather than with a minimum of this and that subject. If well taught, the college will come to recognize the training given in geography as it has been forced to do for other subjects.

A third objection is that there are few teachers prepared to present geography in the high schools. I grant this and more, there is small opportunity for ambitious young people to submit themselves to training for this work; but even now, with all this granted, we have not shown but that geography should be a fundamental part of the equipment of the high-school graduate. Make use of all teachers that we now have who can do the work passably well, create a demand in full view of the institutions preparing teachers, and ere long the supply will increase. A few educators are very much awake along these lines, and scores more are awakening. With Professor Dodge of Columbia, I am convinced "the time is ripe for a systematic endeavor to establish the kind of work that is now in the minds of many people."

A fourth objection is occasionally raised that geography can and ought to be finished below the eighth grade; and with it comes a similar statement that geography, like the three R's, is too elementary to be carried over into the high school where the program is already packed. To this objection comes the answer that English, French, German, and other European universities have long recognized geography as sufficiently advanced for their curricula and have maintained chairs of geography for years; and that both the number of men teaching the science and the number of universities announcing courses are increasing in Europe; and that a very few American universities have begun to make provision for it. If it is not too advanced for the leading universities to grant degrees upon, certainly there can be found a sufficient amount of material of the proper quality for high schools. A few high schools have found it already.

Under the heading of the constitution of the courses will be given a few remarks beginning with physical geography. I anticipate that we are in closer agreement in this branch than farther on.

Physical geography should come in the first year of the high school, because here it becomes a fitting culmination and systematization of the bits of descriptive physical geography that have gone before. Here it also forms a basis for other work in the three years to follow. Most subjects pursued in the secondary schools are, because of their nature, related to and built upon physical geography. Physical geography is fundamental both for all other geography and also for zoölogy, botany, history, civics, and economics. Thoro text work should be done, covering the subjects usually treated in any of the five or six better books; a very little collateral reading can be done, especially where it is possible to utilize books on the physiography of the state, such as a number of our state geologic surveys are now preparing. The subject-matter of the course must be largely descriptive, but the development idea should not be lost sight of. The systematization and classification of land and water forms should follow the descriptive part, but should not be carried too far, remembering that pupils cannot classify until they have something to classify and know its characteristics. Use a classification based on origin and stage in development—a real genetic classification. Systematic physiography can wait for full development in college.

The classroom work should be supplemented with pictures, lantern slides, maps, and globes, and upon these should be conducted systematic laboratory work, aimed at results, and not at entertainment. Keep the laboratory work where it develops reasoning or skill and not merely memory. The laboratory work should be carried into the field for the identification of the real things. Some excursion work in both fall and spring, and conscientious laboratory work all the rest of the year would give the pupil a knowledge of realities upon which to base his conceptions of forms and processes which cannot be seen. The wise teacher will remember that physical geography is not physics, geology, petrography, nor chemistry. Nor has it any business collecting specimens. Pictures may be taken, and maps and sketches made with profit.

Passing over, for the present, commercial geography which, except in the commercial course, should be elective, and meteorology, which should be elective in all courses, we come to the regional geography. "Its educational value lies in its being a synthesis which in its simpler elements is obvious to the very young, and, in its more complex ones, presents problems difficult enough to attract the keenest intellects, while its results have a direct bearing on national as well as on individual life. No other subject unless it be sociology gives the comprehensive outlook on existing conditions which must be taken into account in all the larger problems of life."[1]

It was stated on a previous page that the physiographic region should be the unit in this course; first the larger regions of the continents, then lesser subdivisions. It is too late in the history of geography to make the political domain the unit of study. I have suggested elsewhere[2] that the actual region studied "might be one whole country, as Italy, or two, as Spain and Portugal, or only a part of one, as the Appalachian region in the United States. Descriptions of the physical features and the climate and resources should be coupled with explanations of these phenomena followed by descriptions of the culture features, boundaries, towns, communications, industries, and human distributions always causally connected with the physical features." Geography with its half-dozen branches is a unit and all should be carefully knit together. But geography is not history, economics, nor sociology.

Longman's *School Atlas* (mainly physical), the atlas volume of the last census of the United States, and similar atlases from the censuses of other countries, Bartholomew's *Atlas of Meteorology*, forest and crop maps, maps of mineral productions, and the political maps somewhat familiar from the grade studies, furnish basal material for the laboratory work. Put side by side a rainfall and a forest map of the United States and attempt the interpretation of the distribution of forests. Then put maps of the distribution of the lumber industry, the great lumber markets, and the wood-manufacturing centers over against the forest map; watch the interest grow. Place rainfall, temperature, and wheat maps together, rainfall and wool-production maps, temperature, rainfall, and cotton-production maps together. Study iron-producing, iron-manufacturing, population, and transportation maps together. Study topographic and population maps together; work out relations between topographic and railroad maps. See how many ways one can go from the Atlantic seaboard to the Mississippi valley by rail, then in how many places one can cross the Ohio-Indiana or Indiana-Illinois line, and from the topographic map see why. How many routes from Mississippi valley to Pacific coast? How do the railroads enter Cincinnati or Pittsburg and how do they enter Chicago, Indianapolis, Columbus, or Cleveland; then consult the local United States Geologic Survey topographic sheets to see why the differences. Compare the physical map of England or of Europe with a map showing distribution of peoples; then with these two and temperature and rainfall maps see how many peculiarities in the distribution of the people can be explained. Wind, temperature, and rainfall maps for January and for July will reveal to the inquiring student the main features of the two rainy and two dry seasons of certain parts of the tropics. The monthly rainfall maps of the Upper Nile valley will reveal the secrets of the Nile flood. Leete's map exercises in geography are very helpful along this line of geographic study.

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[1] Herbertson, A. J., *Geographical Journal*, 1904, p. 426.

[2] *Educational Review*, 1908, p. 396.

For textbooks, probably the best all-round book for this high-school course is Mill's *International Geography* published by Appleton. It must be accompanied, however, with atlases and maps, and for best results certain parts in the treatment of several of the countries should be omitted. Appleton's series of *Regional Geographies* in twelve volumes, one for each of the larger regions, like North America, Central Europe, Britain and the British Seas, India, the Nearer East, and others makes a splendid series to accompany the course. Stanford's *Compendium*, new edition, is good for reference work. Brigham and Semple have two admirable books on the geographic conditions affecting American history which might be helpful.

A specific study of the United States for one year, and of Europe for a second year, or a general study of a number of world-problems for a year, would be intensely interesting and of inestimable value to the pupil. Let me urge that he who would introduce regional geography into the secondary school must reckon on a laboratory (map room) and a laboratory period in his program; and he may also count on being, to some extent, a missionary in most communities. But in spite of indifference, inertia, open opposition, the critics, crowded program, and all, I believe it will pay to put into some of our high schools a year in regional geography as a trial. Start slowly, give it a fair chance with other subjects, never call it a fad, and its practical and cultural values may prove it a member of our secondary schools well worth retaining.

Some points in this paper mark ideal conditions not to be attained in a day. Work toward them; an approximation to the ideal is better than no step toward it. If not a whole year for geography, then a half-year. If not both parts—physical and regional—then one part.

DISCUSSION

JAMES F. CHAMBERLAIN, State Normal School, Los Angeles.—Geography has long occupied a prominent place in the curriculum of the elementary school, but not until comparatively recently did it receive serious consideration as a part of the work of the secondary school. It is interesting to note in this connection that the introduction of geography into the high school was not the result of the natural expansion of the work done in lower grades, but rather was due to the influence of the college and the university. When these institutions began to develop the subject of physical geography or physiography, the high schools, as a natural consequence, soon offered courses along the same line. Hence it is that general or regional geography receives practically no attention in the secondary school.

That the study of physical geography requires observation, mental picturing, cleas thinking, close reasoning, accurate expression; that it deals with things and conditionr which vitally influence our daily lives, must be admitted by all. Physical geography lays the foundation for the study of various other sciences as well as for general geography, history, economics, and commerce. That this subject should be one of the corner-stones of the curriculum of the secondary school there is no doubt.

Every periodical devoted to the interests of geography-teaching and every discussion of geography as taught in secondary schools reveal the fact that there is little agreement as to what constitutes a high-school course in this subject. That there should be some slight difference of opinion is fortunate, but where the disagreement is so marked it is evidence that earnest individual consideration, conference, and revision are necessary.

The function of geography in the secondary school, like that of all other subjects, is to prepare the student for the duties and opportunities of daily life, not to prepare him for college. The great body of high-school graduates enter at once upon some business or professional career. These young people need a knowledge of geography which our present course does not give them. Every high-school graduate should know more of the lands and peoples of the earth than he is able to grasp in the elementary school. This knowledge is needed in every occupation, in reading, and in conversation.

Again, as has been pointed out by Professor Hubbard, a large number of high-school graduates enter upon the profession of teaching. Their knowledge of that phase of geography which receives chief emphasis in the elementary school is very meager. Until this condition is remedied, we shall continue to have unsatisfactory teaching of geography in the grades.

The revision of the course in geography for secondary schools is, therefore, a matter of great importance. I favor the addition of a year's work devoted to general geography. This second course should give a grasp of topography, climate, natural resources, industries, transportation, commercial centers, and the many important influences of physical environment upon life.

If but one year can be devoted to geography in the secondary school, than one-half year should be given to physical geography, and the remaining time to general geography. In this case we may profitably omit some of the detailed study of land forms. In the course in general geography there should be, in addition to the study of the best books, the study of models, maps, diagrams, and pictures. The addition of such a course in geography would vastly enrich the curriculum of the secondary school. It would give to graduates of the high school a much better equipment for the various occupations than is now possessed by them, and it would materially raise the standards of teaching in the elementary school.

THE FUNCTION OF THE LECTURE DEMONSTRATION IN SECONDARY SCHOOL PHYSICS

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I have chosen to change the title of my address as announced in the program from the Function of the "Demonstration Lecture," to the Function of the "Lecture Demonstration" in Secondary School Physics. The reason for this change will be apparent as I proceed. When your president asked me to present my views before this body upon this topic I confess that I did not at once see how it could be made of any especial interest, since there seemed to me to be so little opportunity for difference of opinion in regard to it. And I am not certain now that I have anything to say which will not seem to you to be altogether commonplace. I have no radical innovations to propose, and if, as might be inferred from a glance at the history of pedagogical conferences in physics, the especial function of gatherings of this sort is to bring out violent differences of opinion, and under no circumstances to foster an insipid and effeminating spirit of harmony, my address may perhaps fail of accomplishing the desired end. Nevertheless it often happens that where there is no wide difference of opinion as to what is ideally best our practice falls far short of our ideals, and if my observation of current practice, particularly in some of the smaller schools, is correct, there is at least need of emphasizing the importance of the part which the classroom demonstration should play in secondary school physics. I respond therefore heartily to the president's request to assign what seems to me to be the proper place to this element of instruction in beginning physics.

Within the past twenty years the center of gravity of instruction in all branches of study has been steadily moving away from the lecture table, and in my judgment the movement may with profit go much farther in many subjects than it has already gone. As a general proposition, I feel ready to assert that in all branches of instruction the formal lecture is a most inefficient means either of imparting knowledge or of training the powers of the student. It furnishes capital training to the teacher, but little or none to the pupil, and as a means of imparting knowledge someone has compared it to the operation of attempting to fill a score or more of narrow-necked bottles by setting them up in a row at a distance of a rod or more and then throwing bucketfuls of water at them in the hope that a few drops from each bucketful may by some lucky chance find their way into the neck of one or another of the bottles. To carry on the figure, contrast the effectiveness of this operation with that of taking each individual bottle by its individual neck and holding it for a few minutes under the waterspout. Even in advanced work the lecture system commonly degenerates at one extreme into time-wasting dictation, and at the other extreme into such a rapid presentation of an involved subject that the student loses his bearings completely and spends his time in feverishly writing down a mass of unintelligible notes—mere aural impressions—which he hopes by dint of hours of laborious reconstruction to piece together afterward into a more or less intelligible whole. Between these two extremes there is but little ground for a thoroly satisfactory lecture system of instruction to rest upon. It must of course be tolerated in some advanced courses in which the material of the course cannot be made available to the students in other forms, but in this age of many books and cheap and rapid printing this is seldom the case. It is not too much to say that the lecture system as it exists in the German university is, like the German duel, a survival of the barbaric age, when printing was unknown, and when, on account of the laboriousness of writing, the oral method of imparting knowledge was the only feasible one.

The growing lack of confidence in the lecture system in our American universities is nowhere better shown than in the change which has taken place in the past fifteen years in nearly all our prominent law schools in the method of teaching law. The lecture system has been almost entirely replaced by the so-called *case*-system, which is nothing but the laboratory method of the physical sciences carried over into a non-scientific subject. The practical case, that is, an actual experiment in law, is put before the students. They are asked to study it and draw their conclusions from it, and then, when the class meets, these conclusions are analyzed and criticized by the class and the teacher.

Whether or not the lecture system is destined to vanish largely from all branches of instruction, elementary or advanced, as it seems to me desirable that it should do, it is certainly true that in secondary schools it has already vanished, having been replaced by some form of the textbook method. Let us then analyze the textbook method as it exists today in order to see what relation the lecture demonstration in physics should bear to it. Altho, as indicated above, I am a most thoro believer in the textbook method when rightly used, I have no hesitation in asserting that there is no more potent cause of failure in the teaching of physics in secondary schools than the improper and slavish use of the textbook. In the study of language or history the foundation facts of the course must, in the nature of the case, be taken by the student upon *authority*. The material with which the subject deals is not available to him at first hand. Arbitrary facts and arbitrary rules in great number must be learned. The type of training which is furnished by the study of these subjects is largely one of the memory. This cannot be said of mathematics, and yet even here the material of the subject can be just as well presented to the student by the textbook as by the word of mouth of the teacher. As a matter of fact, in general, the presentation of the subject found in the textbook is likely to be more logically arranged and in all respects more intelligible than that given by the teacher. Even in some sciences, notably in physiography as it is commonly taught, much of the material of the subject is not available to the student at first hand, and in this case it is just as well, or perhaps even better, for him to get his first impressions of a particular topic from the textbook as from the teacher. It is evident, therefore, that in practically all the subjects taught in the high school, excepting botany, physics, and chemistry, the student is, and must be, diligently and thoroly trained in learning his lessons from the textbook. A given number of pages is assigned each day in advance and the pupil studies over these pages in order that he may be able the next day to reproduce, either directly from memory or by a judicious combination of memory and understanding, what he has learned from his text.

Now it is this sort of textbook habit to which the pupil is so diligently and so necessarily trained in almost all of his other high-school work, which constitutes the most serious hindrance to his progress in grasping the method and the spirit of physics; and the first task which lies before the teacher in starting a class in the study of physics is that of breaking the pupil of his formerly acquired textbook habit. The aim of the physics course is not to acquaint him with any set of arbitrary rules, nor to fill his memory with somebody's else formulations of so-called physical laws, tho this may not be altogether bad if done in moderation. It is rather to teach him to observe and to interpret for himself the physical world in which he lives. Hearsay or textbook knowledge of the facts of science is a woefully feeble and inadequate substitute for the knowledge which comes from seeing and handling these facts themselves.

The first duty then of the teacher of physics, both in order of time and in order of importance, is to place the phenomena of physics directly before the pupil by well-chosen classroom and laboratory demonstrations.

But in making this assertion, I wish to disclaim all sympathy with the idea that the physics class should be a place of amusement or of mere entertainment. The most fundamental aim of all education is to develop in the pupil the habit of industry and application, the desire and the ability to stick to a problem until it is mastered; and any tendency in education which weakens or obscures this aim is to just that extent vicious. Note, however, that the awakening of the *desire* is a prerequisite to the acquiring of the *ability*. In other words, the pupil must be *interested* in his task, if the task is to be of any great value to him.

Where our physics courses fail in giving the student a thoro grasp of the fundamental principles of physics, they fail, in general, for one or the other of two reasons. At the one extreme, instead of insisting that our pupils master the fundamental principles underlying particular physical appliances, we make our study of these appliances a mere playing with toys. We have our pupils play with the steam engine, with the gas engine, with the wireless telegraph, in much the same way in which the child plays with his toys. We teach them what valves must be turned to make their new toys go, and we give them the pleasure of seeing them go, but we leave them with about as much notion of the fundamental physical principles underlying the toy as the five-year-old child has after he has learned what valves to turn and where to put the alcohol lamp in order to make his toy engine run. In this type of instruction I see little to commend. It seems to me to be physics instruction turned exactly up-side-down. It tends to make chauffeurs of our students and nothing more. It doesn't train them to think, or give them the scientific outlook upon the world. The proper order seems to me to be first to present by a simple experiment the naked principle, then to drill the pupil in its more obvious and direct applications, and finally to study complicated mechanisms in the light of this and other principles similarly acquired.

At the other extreme, our physics courses fail to develop a grasp of fundamental principles, because, altho the element of drill is present, the element of *intelligibility* is wanting. The subject is not brought down to the level of the understanding of the pupil. He is made to learn a lot of meaningless formulae, and to apply these formulae in stock problems, the method of solving which he learns by rote. The course becomes to him useless drudgery, because he does not know what it is all about. In my judgment, the poor grasp of principles, of which our college examiners complain, is more often due to this type of course than to the former type. Into such a course I would not infuse the element of *amusement*, but rather the element of *intelligibility*, the element of *interest*, which invariably follows as soon as the course becomes intelligible; and it is to make the course intelligible that I say that the first duty of every teacher, both in order of time and of importance, is to place the phenomena of physics, about which all physical reasoning is grouped, before the pupil, both by laboratory exercises, and by classroom demonstrations.

I am confident that I shall arouse no opposition when I say that every elementary course in physics which is worthy of the name must be built up about some sort of an *experimental* outline. It is therefore self-evident that the performance of the experiment, or experiments, upon which a given part of the course is based should precede all textbook study of these experiments, or of the conclusions deduced from them. The chief, almost the sole, aim of a text is to assist the teacher in the discussion and interpretation of experiments. It is in no case to relieve him of the necessity of doing experiments. It enables him to cover very much more ground than could otherwise be covered, since it makes it possible to abridge description, discussion, and illustration, wherever these are of such a nature that they can be just as well obtained from the text. It furthermore enables the pupil to study at his leisure, and critically, experiments and conclusions which have been rapidly presented in class.

In my judgment, the demonstration work of a class should not, in general, be given in the form of set lectures. The experiments should be performed and informally discussed by the class and teacher, and this discussion should be followed, first by the textbook's explanation and discussion of these, or of similar, experiments, and later by problems or questions involving applications of the principles learned. It need scarcely be said that every good teacher will of course make the most intimate and vital connection possible between the experiments of the classroom and the phenomena of daily observation.

But, someone asks, why have lecture demonstrations at all? Why not build up the course entirely about a laboratory outline, and let the student perform all of his own experiments? This plan has often been tried, and it has some advantages; and yet it too unquestionably represents a method of instruction of very low efficiency, for there are many experiments which can be performed with great saving of time, and with great saving of expense in the way of apparatus, and at the same time without any loss in the pedagogical results obtained, if they are performed by the teacher before the class, instead of being performed by each individual. For example: if expansion by heat is to be illustrated by the old ring and ball experiment, it is just as convincing to the student to see someone else try to push the ball thru the ring and fail, as to try to do it himself. Furthermore, there are many experiments which the student can easily understand when he sees them, but which require, for their proper performance, a manipulative experience and skill which he does not possess. Many of the projection experiments in optics fall under this head.

Just how the experimental outline of the course is to be divided between the laboratory and the classroom, and just what type of experiment shall go to the laboratory and what to the classroom, are matters of great importance which are often given very insufficient consideration. Perhaps the blunder of placing essentially laboratory experiments in the class work is more frequent than the reverse. The assigning of all qualitative work to the classroom and all quantitative work to the laboratory is an artificial and illogical division. There are many qualitative experiments, like those which have to do with the reading of thermometers, or other instruments which but one or two observers can see at once, which go much better in the laboratory than they do in the classroom. Again, there are other qualitative experiments, like those met with in the study of static electricity, which the student must do himself, and which he must perhaps repeat a number of times, if he is to grasp their meaning thoroly. These, of course, should be assigned to the laboratory. And incidentally what a refreshing thing an occasional qualitative experiment in a laboratory manual is to the pupil!

On the other hand, there are some quantitative experiments, like the experimental verification of the laws of falling bodies by means of the inclined plane, which can be done as classroom demonstrations to very much better advantage than as laboratory exercises, for the reason that they can be seen by a large class and that the accuracy of the results depends upon a manipulative skill which a student will not in general have. There are other experiments, like that of the verification of the parallelogram of force, which the teacher will want to do roughly in class and afterward have the students repeat more carefully in the laboratory. As a general rule it is of course true that the quantitative experiments will go to the laboratory and the qualitative ones to the classroom. But the point which needs to be emphasized most strongly is that the students must not under any circumstances be left to get their knowledge of the experiments which constitute the backbone of the course from reading about them in the textbook. They must see them at first hand.

A word as to the characteristics of a good lecture demonstration. They are: first, that it be observable to the whole class, and not merely to one or two; and second, that the principle to be illustrated be not confused by unnecessary complexity in the apparatus employed. In other words, the demonstration ought to be, as far as possible, an illustration of one principle, not an illustration of many. For example, experiments in induced electricity may be performed with a mirror galvanometer which throws a spot of light upon a screen. This satisfies the condition of being visible to the whole class, but it violates the condition of not being as simply and readily intelligible as possible. It is better, if possible, to perform these experiments with a pointer galvanometer, which doesn't involve an optical principle which the students may or may not be familiar with in addition to the electrical principle which it is desired to make clear. There is, however, no way of showing exactly what lecture demonstrations seem to me to be desirable and what undesirable except by going thru the whole range of physics and indicating a complete list of demonstration experiments. Since this is obviously impossible in the short time at our disposal I have selected a few experiments which seem to me to be representative of good classroom exercises. They are of course not new and could scarcely be new, else they would have no place in elementary physics. The first has to do with the illustration of the principle of electro-magnetic induction; the second with the classroom illustration of the difference in wave-length of red and green light; the third with the darkening of the *D* Fraunhofer line when the beam of sunlight is passed thru incandescent sodium vapor, and the last with the classroom demonstration of the properties of electrons.

DISCUSSION

Franklin T. Jones, registrar and science teacher, University School, Cleveland, Ohio.—The main point which I wish to emphasize in my discussion of this paper is—that the demonstration lecture should be a time-saver. Before taking up that phase of the subject I wish in a few words to champion the habit of memorizing certain things in all branches of science. We have come to look down on the teacher who drills on definitions. In history and literature in many schools it is true that the pupil is compelled to reproduce by topic the substance of a certain paragraph. It is likewise true that some science teachers compel the same type of recitation. No defense can be offered for such a practice, but when we turn to the other extreme and say "No memorizing," our position is equally indefensible. Frequently verbatim servile memorizing is the only way to assure the acquisition of a clear-cut description which in the pupil's own words would be vague, inaccurate, and unscientific. Repetition of this statement with its added meaning as the idea becomes familiar means growth.

The only criterion I wish to propose for the selection of a lecture demonstration is that it be a time-saver. By that I mean (1) it must make possible the explanation of a fundamental principle in less time; (2) it must hasten the assimilation of the principle by the pupil; (3) it must be something worth illustrating. A great deal of time is frittered away even by the best and most careful teachers in illustrating by experiment things that do not need illustration. Adaption of experiment to the class to which it is to be presented is a problem for the teacher to solve. Let him always ask when he performs an experiment—Is it saving time?

One great source of time dissipation is the laboratory. Very frequently experiments there given are more suitable for the lecture table and the pupil would learn just as much by seeing and calculating as by doing the whole experiment himself. Still further time may be saved by eliminating long and tedious experiments whose results are more easily obtained either by description or even on authority.

How much time may be thus saved and what is to be done with it? Time-saving as a motto will carry a teacher over the proper subject-matter of elementary physics in six months, twenty-four weeks, one-hundred and twenty exercises—a saving of one-third. Should the extra time be devoted to the explanation of the new theories, to pretty demonstrations, to doing advanced work? Only in part. The major portion should be devoted to review, to the turning over of old facts from new points of view, answering suggestive questions, working problems, thinking. As teachers we have much to learn from the methods of the correspondence schools who emphasize fundamentals, stimulate thought, and inspire hard work by pointed questions.

N. HENRY BLACK, science master, Roxbury Latin School, Roxbury, Mass.—Since in the main I agree with the two gentlemen who have just preceded me, I will not take your time to point out the little things wherein we disagree, but will call your attention to the great value of the lecture-table experiment as a means of arousing genuine *interest*. The student's interest is bound to be kindled when he can quickly grasp the physical principle involved in an experiment. The subject becomes more real, concrete, and vital. In the lecture the teacher can throw in many side lights in the way of historical references, personal experiences, and practical applications.

In order that the lecture-demonstration may do its work effectively, it is very essential that it *go*. This means good apparatus, and considerable skill and practice in manipulation. Then, too, the demonstration must have a *point* which the student easily sees. This means simple and large apparatus. But it is also essential that the demonstration be not merely a clever show which impresses the student much as a sleight-of-hand performance. It should rather be a co-operative effort on the part of the teacher and the student. Often an experiment which apparently fails at first, may be made very instructive by finding out the cause of the failure. Sometimes the students themselves can really help in the preparation and performance of lecture experiments. This is especially true of lantern-slide talks.

But the fact is that in our efforts to develop the laboratory and inductive side of physics in our secondary schools, we have neglected the lecture demonstration. Why is it? The teachers have had no special preparation for this work. In the colleges and normal schools, the professors, often too busy in the management of the laboratory work and their own research, do not take the time to prepare first-class lecture demonstrations. Much of the apparatus in our schools for the lecture-table experiments (even what little there is) is flimsy and toylike. American apparatus dealers have done much to develop good school laboratory apparatus. Now we want them to turn their attention to simple, large, strong lecture-table apparatus. Finally the greatest drawback in the way of good work in this direction is the fact that not enough time is given the teacher properly to prepare himself and the apparatus.

PRESERVATION OF THE NATURAL RESOURCES OF THE UNITED STATES

DR. HERBERT A. SMITH, EDITOR "FOREST SERVICE," UNITED STATES DEPARTMENT OF AGRICULTURE

I am not here in order to talk on this subject simply as a matter of general interest. I am here because I want to present it particularly to teachers. I believe that it has an important relation with the specific work and the problems of the teacher; and before I get thru I hope I shall persuade you that it is so. Otherwise I shall be sorry that I came.

Professor Baily and I are here to present to you what are really two different parts of one great subject. It is a subject which in sober words—and I do not believe in sweeping statements—seems to me to be beyond all others the most important which can now be brought before the American people. It is the problem of how, by the application of deliberate forethought and trained intelligence, to make the most of ourselves as a nation.

We have, as we now see, suffered tremendously from waste—waste of natural resources and waste of human life. This is only one side, the minor side, of the matter. Under all there is a much bigger thing than merely to cut off the waste. When we total the amount we pour into the sea, let go up in smoke, and blot off the face of the map by the destruction of the productive power of the land, the aggregate loss is a staggering one. When we think of the waste of human life thrown upon the junk heap and into the garbage pit of society, the wreckage that fills our poorhouses, jails, and slums, besides our vast sacrifice to preventable accident and disease, when we appreciate what it would be to society if all these men and women were efficient members of the industrial body, we see that here also is enormous loss.

But that is the minor part of the thing. A possibility is before us so big that it is hard for even the imagination to take in at once. Yet it is not the imagination of a visionary. Suppose we bring to bear this principle of the application of trained intelligence to making the most of the land, the water, the forests, and the mines, and making the most of the men and women whose labor is the only thing that gives value to these resources; looking at it from the narrowest and lowest, the purely economic standpoint, what a country this would be to live in!

But there is something much greater involved than mere material progress. There is a new conception of citizenship and service. To my mind President Roosevelt never spoke a more admirable word than the concluding passage in his address before the White House Conference in Washington last May.

> Finally [said the President] let us remember that the conservation of our natural resources, though the gravest problem of today, is yet but part of another and greater problem to which this nation is not yet awake, but to which it will awake in time, and with which it must hereafter grapple if it is to live—the problem of national efficiency, the patriotic duty of insuring the safety and continuance of the nation. When the people of the United States consciously undertake to raise themselves as citizens, and the nation and the states in their several spheres, to the highest pitch of excellence in private, state, and national life, and to do this because it is the first of all the duties of true patriotism, then and not till then the future of this nation, in quality and in time, will be assured.

Now this is where the affair touches the teacher. There is here, if I see it aright, not merely an economic problem; there is a tremendous moral problem. Will you permit me to say a few words as one of you, one who was for a number of years himself a teacher, and has always had a keen interest in the problems of the teaching world? A few years ago we were in the midst of the fight between the cultural studies and the scientific studies; then between the studies that were disciplinary on the one hand and the studies that were either cultural or practical on the other. Now we have the question in the new form of vocational studies as against the training for citizenship. I believe that the great coming need in all education is going to be vocational education. The same thing is true whether you look at it as the right of the boy to himself, the principle upon which we prohibit his engaging in employment and require his attendance at school, or whether you look at it in the light of the need of the nation for his services in economic occupation. A man who is not able to earn a living, or who is not able to support in decency and reasonable comfort his family, is not in a condition to make a good citizen. It seems to me that it makes no difference how much of virtue we try to teach him in school; unless we give him a certain capacity for economic success, he is not going to be the right kind of a man and is not going to bring up the right kind of boys and girls.

But we may carry our education for efficiency to the highest point, and yet have a body of citizens who care nothing for the state. We may have men brought up with no desire for service and no capacity for loyalty, one-sided men, economic machines, pleasure seekers, money grabbers. Then how much better off shall we be? No, we want the whole man. We cannot divide the mind into separate compartments and train this particular one and not train that one without paying a penalty. We must educate the emotions and sympathies, the idealizing side, the moral, spiritual, and religious side as well as the hand and the brain.

This has to be done thru the personality of the teacher as well as thru the make-up of the curriculum. It is the man behind the gun, the way in which the work is presented by the teacher, which molds character. So it seems to me that this is a thing peculiarly for you teachers of science to bear in mind in your training of boys and girls in the things that are useful and practical.

You must in that training make citizens who do not believe in wasting that which belongs to the nation. We must in many ways come to an entirely new point of view. We must change our ways of thinking, our policies, our laws. We shall have to change in some ways our ideas of the rights of property. I know that begins to sound startling. You say "Shall we begin to chase the rainbows of theory?" No, we must go forward step by step, on hard, practical matters of fact. That is what I want to present to you—hard matters of fact—and then ask what is to be done about them. The only thing I object to is the man who says nothing can be done before we have looked to see what the facts are.

Here is a crucial case: shall a man do what he will with his own? Shall a man destroy the capital, the assets, a part of what makes the property of the whole nation, because it suits his purpose to do so? Or shall we put some limitation upon him? It does not concern me very much whether this be done by an agency of the nation or the state. The important thing is that it shall be done, if it needs doing, and done by the one who can do it best. A great deal must be done by the individual states, and a great deal more by the nation. How we are going to meet the situation is a question of details, to work out after we have the actual facts before us.

We have become a great manufacturing nation. Only eight years ago we reached the production of England in coal, and now our production of coal is nearly one and a half times as large as that of England. Our production of pig iron is nearly half that of the whole world, and two and a half times that of England. You know quite well that industrial supremacy is determined more than anything else by iron and coal, or iron and fuel. Is there any danger of exhaustion of our supplies? At the White House Conference last May two such men as Andrew Carnegie and James J. Hill dwelt on the fact that our coal and iron are both being used at an appalling rate; that great economies might be brought about; and that our industrial future is seriously concerned.

Is there anything that can be done about it? We have to have the material that can be used only once. Why should we handicap ourselves and the markets of the world for the sake of the future, which ought to solve its own problems in its own day? For answer, consider for a moment natural gas and oil. Originally this country was fortunate far above all other countries of the world that are now in the industrial race in its supply of natural gas. Other countries have coal; but the gas, which is in many ways the most efficient, the most manageable, and most available form of fuel, has been wasted in the boring for oil and in the taking of oil in a way that is nothing short of national disgrace when we come to read the record. The state geologist of West Virginia, Dr. I. C. White, who has made a special study of this, has said that there is now going into the air the equivalent of a hundred and sixty thousand barrels of oil every twenty-four hours in the waste of gas: that on the whole probably ten times the value of fuel in the form of gas has been wasted for every barrel of oil that has been obtained. Yet this has gone on without any attempt at control by law except in one single state—Indiana—where late in the utilization, laws were passed which prohibit the taking of oil in a way that does not provide for the conserving of gas. Oil and gas are distributed under the ground so that when one man begins to draw upon it he draws off from beneath the land of his neighbors. Hence, naturally, a race when the development begins. Today in Oklahoma great quantities of oil are being pumped out beyond any capacity to take away. It is stored in reservoirs where the oil deteriorates very rapidly, evaporates, sinks into the earth. And yet that is done, as you can readily see, under the pressure of economic motive. And it is unavoidable as long as the law permits the securing of the oil under the present method. Do not these facts bring home to thinking men the necessity for doing something to conserve this resource?

Then again there is the matter of waste in coal mining. One form of this waste is the leaving in the ground of inferior coal because it does not pay to take it out at the present time. This points to another important direction in which government action is necessary. The studies of the Geological Survey have shown how inferior grades of coal for which there has been no demand can be utilized in a gas engine very effectively. And just as we put restraint now for the benefit of the community on the user of coal to prevent the smoke nuisance, we have a right within reasonable limits, in such a way as will not hamper industry, to put in effect such requirements as will insure the best use of the fuel resources in the long run. We can do perhaps more by education than in any other way. Here is an opportunity for the government, whether state or national I do not care, in the interest of the public to study, to plan, to teach, to bring this country to use these resources in a way that will contribute most to the well-being of us all.

Dr. White, of West Virginia, said in concluding his address at the White House Conference:

> Just as sure as the sun shines, and the sum of two and two is four, unless this insane riot of destruction and waste of our fuel resources which has characterized the past century shall be speedily ended, our industrial power and supremacy will, after a meteor-like existence, revert before the close of the present century to those nations that conserve and prize at their proper value their priceless treasures of carbon.

That summarizes the whole question from the point of view of the specialist—the man of expert knowledge—and the man on the ground, and it coincides with the point of view of such men as Carnegie and Hill.

The movement for the conservation of our natural resources began in the winter of 1907, when communities in the Mississippi River Valley petitioned the President to begin an investigation of the possibilities of waterway development for the benefit of the commerce of that region. The President appointed, therefore, a waterways commission. But instead of confining the study to the improvement of the waterways simply, the President said in effect—we never thought of the use of our streams as a whole. There is the use for navigation; there is the use for irrigation; there is the use for power. And there is the waste which is caused by flood as well as the loss which comes from the shrinkage of the stream after the flood is past, and the damage done by the bearing down of soil into navigable rivers. Said the President, "We must have a comprehensive scheme." And the commission was instructed to make its report along these lines.

Now to prevent waste in our water we must consider that every bit of water that flows must be made to render its fullest service to man. How can that be done? Partly by storage reservoirs, partly by forests. For forests are like reservoirs, in that they hold water back, but unlike reservoirs, they also hold soil in place, and so keep the reservoirs from being filled up. We must regard water as an asset to secure from it every bit of work that we can get out of it. If we get the most out of it, we shall not do away with the need of coal. The total water power capable of development under present conditions in the United States, unsupplemented by coal, is said to be somewhere in the neighborhood of the total amount of power which we are now developing thru coal. The mere statement of that fact is enough to make it clear that we shall need the coal to supplement the water power. In this way we can tide over the low months in the year during which streams run at a minimum, and so utilize their much higher power during the remainder of the year. So the coal and the water power must go together. But the water must be made to do all that it can for us, and that means not only that we must control it by our reservoirs and by our forests, but also that we must consider how we handle the soil in agriculture and see what the water question means there, for the two interlace.

The farmer is now losing actually from his farm no insignificant, no negligible part of its value thru soil wash. He is losing also no small value in fertilizing salts which are dissolved and carried away by the water. So far as soil wash is concerned, the farmer's loss means not mere waste, but an active agency of evil turned loose. The question of agriculture has therefore to be studied both in its relation to water and as itself a conservation question. The very greatest of all conservation questions, of course, in the United States is that of the best use of the soil—of the practice which will enable our farmers to get the most possible out of it in crops, thru the best cultural methods.

Forestry was the ground breaker in this whole subject of conservation, the thing that has opened our eyes to the fundamental principle. The United States has now about 168,000,000 acres of land in national forests. This land, if it had not been thus set aside, would doubtless by this time have passed to private owners in so far as it is valuable timber land, and would have followed the same course which our private timber lands have taken in other parts of the country. What is happening to it now? It is being put into use to the utmost possible limit, but with the interest of every user considered; none unduly sacrificed to someone else, and with the interest of the future considered as well. The mature timber is for sale; but the government sees to it that when timber is sold to a man he is permitted to cut only that which is mature, only that which to maintain a continuously productive forest must be removed. The young timber is left to grow bigger; and at the same time the starting of new growth is provided for.

But more important still is the question of the farmer on the streams far away, who depends on the water fed from those forests for irrigation. Where it is necessary not to cut the timber in order to prevent a bad effect upon the streams, there the government prohibits the cutting. So the highest and best use to the community is obtained from that land, both from the point of view of timber supply and from that of water supply.

Then there is another great forest resource. These forests are also ranges for a large part of the stock of the West. When the range was open and every man could go in with all the stock that he wished to take the chances of being able to keep alive, we had war between the sheep and the cattle men as well as competition between individuals; and we had a waste of the resource, for the scramble and overuse brought about a progressive deterioration of the range. Now within the national forests the government sees to it that the land is not overgrazed. It also sees that the man who has the best right to the grass gets it. It is now studying whether new grasses can be sown, and whether the grasses can be made to sow themselves so as to increase the amount available. It is studying also to eradicate poisonous plants. In short, it is seeking in every way to make the land produce in forage its largest possible contribution to the welfare of the community. So in the various uses of the national forests we see an example of the sort of thing which conservation means.

In concluding, there are two or three things which I want to say definitely to the teachers here. There is much valuable information for the teacher in the city of Washington, which few teachers have learned to use.

The Forest Service, for example, has publications that should interest teachers, most of which may be had free. If you want in your teaching work, particularly in geography work, pictures of the forests of the different parts of the country, of the lumber industry, of forest products, of the effects of denudation of forests and soil erosion, or of the work of the Forest Service, write and ask for what you want. These pictures can be sold you at cost price. If you want lantern slides for illustrating lectures, if you want transparencies for school museums, they can be made and sold to you, and it may be worth your while to write and inquire about that. Finally, if there are any parts of your teaching work in which you think the Forest Service might be able to help you in any way, write and ask about it. You may be certain that any request that you make will be attended to as carefully as possible.

I should like to make a suggestion to this Department of Science Instruction. If your body would appoint a standing committee, or empower your officers to appoint such a committee, to be your representative in finding out what material valuable for the teacher there may be in Washington, either in the Forest Service or elsewhere, and what useful material could be made available if it is not already, and having found out, to let your body know, I believe that something worth while might come of it.

One last word. I hope you will all, as you go among teachers elsewhere, let these things be known. The government should do its best to help the teachers of the country in their effort to teach the boys who are soon going to be the voters, and the girls who will soon begin to be the mothers of a new generation. The politician knows that it is worth while to make friends with the boys. With the same kind of foresight, it is for you to try to bring those boys to the right kind of view, to give them the right preparation for citizenship. Of that preparation, an appreciation of what the conservation of our natural resources means to our future national life is no unimportant part.

DEPARTMENT OF PHYSICAL EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—WILLIAM W. HASTINGS, International Y. M. C. A. Training School, Springfield, Mass.
Vice-President—CLARK W. HETHERINGTON, University of Missouri, Columbia, Mo.
Secretary—MARTHA J. JOHNSON, supervisor of physical education, Salt Lake City, Utah.

FIRST SESSION.—TUESDAY AFTERNOON, JUNE 30, 1908

The Department met in the Second Presbyterian Church. The meeting was called to order by the president, William W. Hastings.

The opening address by Dudley A. Sargent, M.D., director of physical education, Harvard University, Cambridge, Mass., was entitled "Should the Director of Physical Education in Public Schools Have the Training of a Physical Director and Instructor in Hygiene, or That of a Physician?" Discussion of this paper was deferred until Thursday morning.

G. Stanley Hall, president of Clark University, Worcester, Mass., read a paper upon the subject, "Elements of Strength and Weakness in Physical Education as Taught in Colleges." This paper was discussed by Charles F. Thwing, president of Western Reserve University, Cleveland, Ohio, followed by W. P. Bowen, Michigan State Normal College.

"Elements of Strength and Weakness in Physical Education as Taught in Preparatory Schools" was the subject of a paper read by Robert B. Nason, high-school principal, Francis W. Parker School, Chicago, Ill.

The subject of "Elements of Strength and Weakness in Physical Education as Taught in Public Schools" was presented by George Wittich, physical director of public schools, Milwaukee, Wis., and his paper was discussed by Mrs. Frances W. Leiter, national superintendent of physical education, W. C. T. U., Mansfield, Ohio.

The president appointed Miss Marion B. Newton, Rochester, N. Y., and A. H. McClure, Yuma, Arizona, as a committee on nomination of officers for the following year.

SECOND SESSION.—THURSDAY MORNING, JULY 2

President Hastings called the meeting to order at 9:30 A. M. and presented his address upon the subject, "Systematic Training for the Teaching of Physical Education."

The general topic for the session was "Training of Teachers of Physical Education." The first paper upon the topic was presented by Dr. Jay W. Seaver, Chautauqua Summer School, who spoke on the "Essential Elements in the Training of the College Physical Director."

Miss Marion B. Newton, physical director of public schools, Rochester, N. Y., spoke upon the "Essential Elements in the Training of Teachers of Gymnastics." Her paper was discussed by John A. H. Keith, president of State Normal School, Oshkosh, Wis.

Mr. J. Harlan Rush, physical director, University School, Cleveland, Ohio, discussed the subject of "Essential Elements in the Training of Teachers of Athletics."

Mr. A. H. McClure, superintendent of schools, Yuma, Arizona, discussed Dr. Sargent's paper of the previous day.

A motion was made and adopted that a committee be appointed to memorialize the next United States Congress, presenting an urgent demand for governmental action in securing national health and vigor thru a national system of physical education.

The following resolution was presented and adopted:

Resolved, That, as a means to incorporate physical education into the curriculum speedily and permanently, we favor the enactment of laws in the various states which shall make systematic training compulsory for all pupils in all schools under public control.

The nominating committee made the following report:

For *President*, William W. Hastings, instructor in International Y. M. C. A. Training School, Springfield, Mass.
For *Vice-President*, W. P. Bowen, professor of philosophy of education, State Normal College, Ypsilanti, Mich.
For *Secretary*, Rebecca Stoneroad, director of physical training, Public Schools, Washington, D. C.

MARTHA J. JOHNSON, *Secretary*

PAPERS AND DISCUSSIONS

SYSTEMATIC TRAINING FOR THE TEACHING OF PHYSICAL EDUCATION

WILLIAM W. HASTINGS, INTERNATIONAL Y. M. C. A. TRAINING SCHOOL
SPRINGFIELD, MASS.

For all professions, the excellence of preparatory training keeps pace with the popular demand for it. This demand depends upon general education in the essential character and purposes of the particular profession.

It was primarily this fact of the success of the natural-born physician or lawyer, who merely read medicine or law, that retarded so long the development of medical and law schools. It is the recent vast multiplication of knowable facts thru research, and the popular knowledge of law and medicine which has compelled the development and patronage of these schools. Similar causes are operating to retard, and to develop and systematize training for the teaching of physical education.

The modern city reaches out its tentacles for the trained mind, and for good muscles and red blood to back this mind. Its hungry maw demands tireless energy, indomitable will, reserve force. Its insistent demand is that man become a good healthy animal, to stand the strain.

There is no agency strong enough, broad enough, constant enough to create and maintain national health and racial vigor but that of the state.

It is taking state and national legislation, state and national organization and supervision to assure such concerted action as will reduce illiteracy to the lowest possible minimum. National health is even more important than mental training. Only the same quality of organized effort will reduce disease, debility, and deformity to a minimum, will give bodily vigor, intellectual poise, and moral stability to national character.

Only a national system of physical education, backed by public funds, systematized by national organization and study of relations, and manned by teachers thoroly trained physiologically and practically, will insure national vigor.

Our chief immediate needs are two: better material for the training schools, and such a demand on the part of the public as will refuse to employ merely a gymnast or athlete because of supposed personal adaptation.

Both of these needs would be satisfied if the executives of our Young Men's Christian Associations, Young Women's Christian Associations, athletic clubs, playgrounds, and educational institutions would send these heaven-born directors to the schools for suitable training. The law of the survival of the fittest might return a goodly percentage of them to digging sewers and washing dishes, but such early elimination is beneficial to the system.

But the argument for the need of training, as based on the general proposition that thoro training is essential for success in the other professions, needs no prolonged defense.

The chief lack in our scheme of physical education is evidently that of facilities for the training of teachers. There is a very essential lack of breadth and perspective on the part of a majority of our physical directors, as will no doubt be pointed out to-day in the critical review of our profession by those outside of it; there is frequently a lack of even plain, ordinary common-sense adaptation of forms of muscular activity to the various ends to be sought; there is much mechanical drill and following of the "rule of thumb;" but if these sad defects apply less glaringly to well-trained men and women of broad culture and attainments, as they must, the contention for more training, better training, and better organized training is maintained.

The crux of the whole matter lies in the strength of organization back of this training for physical education, and responsible for it. The present training schools are either limited in capacity or lacking in financial support. They are all under private direction and supported largely by private contributions. The summer schools of physical education have done much to popularize saner methods of physical education, have paved the way for the more extended courses in professional schools. The latter have been extending and broadening their schemes of training, until courses of three and four years are now given in training schools proper and also in colleges and universities, along with the general culture work leading up to the degree of bachelor of physical education or bachelor of science, the first institution to outline such a course and to graduate students with such a degree being the University of Nebraska.

These agencies are all good; they have been the saving of the profession against all the array of fads and isms; but when the combined annual product of graduates from a dozen or more training schools amounts to scarcely more than half a hundred men and women each year, and the number in attendance at summer schools to perhaps five hundred, very many of whom are already teachers of physical education, one is impressed with the utter inadequacy of present means of preparation to meet the demand for teachers.

It is no more possible for private schools of physical education to meet the demand for physical directors of the university and public-school systems than it is for a few private normal schools to provide teachers in science and literature for the university and public-school system. Present agencies are inadequate to supply even the private institutions with physical directors, and they give no promise of being able to extend their capacity enough to meet even this narrower demand upon them.

But in dealing with this matter on a numerical basis, we have been ignoring entirely a most important element in the problem; namely, the adaptation of the teacher to the field, and the necessity for a totally different type of teacher and training for such teachers in the Y. M. C. A., the college, and the public-school fields respectively. The content of the training itself affects the practicability of getting it done, and points to the organization which should be held responsible for the doing of it.

As long as mere ability to do gymnastic stunts was the chief desideratum in Y. M. C. A. gymnasia and Turnvereins, we had acrobats as physical directors. As long as athletic prowess is considered the one necessary qualification for college and preparatory-school gymnasia, we shall have crack athletes as physical directors. And as long as care of the physical in public schools is confined to the diagnosis of disease and the elimination of defectives, or the possible emphasis of medical and corrective gymnastics, we shall have medical inspectors with little or no practical knowledge of physical education as a whole, to act as physical directors of public schools.

But a stage has been reached in the development of the subject at which we are broad enough to concede the proper function of heavy gymnastics, athletics, and medical gymnastics; all we object to is such overemphasis of any type of exercise as would place the "but-one-idea teacher" in a position to do harm. In training teachers in any school of physical education, the purpose of *exercise for health first* must be made central, and the principle of adaptation of physical habits to the individual life be made the basis for the giving of every kind of exercise.

There is unquestionably a growing tendency toward the proper emphasis of these principles in all the schools of physical education and among those who teach in schools of expression, because physical well-being and the means to this end in adaptation of physical activity to the individual mean *reserve force*, and this is a prime essential for public speaking, for athletic contests, or for any department of life.

There is a most hopeful tempering of one-idea people and schools and systems going on, and a most salutary assimilation of ideas from others; but care must be had, however, that these ideas assimilated are best ideas, and not those ready to be sloughed off from disuse, and that in becoming broad, we be not spread out too thin.

This leads to the consideration of a most vital matter, that while on the one hand natural selection has been calling athletic coaches, acrobats, and fancy dancers into the directorship without the accessory breadth of training, the great demand for teachers has led most training schools to attempt to furnish physical directors for totally different fields—colleges, preparatory schools, public schools, social clubs, etc., with practically the same broad training, and frequently with little personal fitness for the position chosen.

Generally speaking, a college man is best adapted for the college or preparatory-school physical directorship, because he understands from experience the college atmosphere. He should preferably be a college athlete, because this carries with it natural leadership in physical and social lines. But he must be also a man of thoro training in physiology, hygiene, and physical education, that he may work for the physical welfare of the whole student body, and that he may be qualified and may teach at least one of these subjects in the regular college curriculum, preferably hygiene, and may have regular standing among the professors of the institution. He must be also a man whose moral integrity and influence is beyond reproach. Manifestly, then, the most suitable place for the major part of the training of a college physical director in western or southern states is the state university; for where his capacities are best known, he can best be influenced to develop them, and if the proper facilities were provided in the state university, he could do this while obtaining his bachelor's degree. Further specialization along physiological or medical lines should be obtained at some leading university, or should ultimately be available at our national university at Washington.

In the East, where the function of the state university is assumed by the leading private universities, the course in physical education should be offered by such universities, and is being offered by one or two of them.

The physical director of the preparatory school should be bred in one of the best preparatory schools, finished in one of the leading universities, and have received at least two years' technical training in physical education in such a university or in a training school.

The physical director of the Young Men's Christian Association should be selected from the leader's corps of the city gymnasium, should have preliminary training as assistant physical director in a city association, or as director of a small gymnasium, and be trained in one of the two Y. M. C. A. training schools; for there is a social and business as well as a religious atmosphere essential to the proper training of the Y. M. C. A. director which cannot be superimposed upon the man theoretically, but must be bred into him by environment.

The public-school physical director needs to have grown up in a progressive public-school system of physical education from youth, to have learned at given ages the muscular movements adapted to those ages, and to have completed in a state normal school or state university his courses in the theory of physical education, physiology, hygiene, and psychology.

The director of physical education in a great city needs, in addition to the foregoing training, further specialization along the same lines, with special emphasis upon hygiene and upon the study of defectives at a national university.

As the state is the real unit in the working out of this problem, it may be well to summarize from experience the internal workings and relations of various agencies in a state where the state university is the center of all educational movements.

To create interest[1] there was organized or rather reorganized under the joint management of representatives of the athletic boards of the leading institutions of the state a State Intercollegiate Athletic Association; there was also organized, under the joint management of a student and a high-school principal or city superintendent from each town or city, a State Interscholastic Association, which insisted not merely on clean sport but on such age and weight classification of teams and contestants as would insure the least possible danger of strain, and required a well-defined amount of preliminary training under care of a physical director; a State Physical Education Society was organized as a section of the State Educational Association to discuss those matters vital to the development of physical education in the state. There was brought into its membership leading city superintendents, principals, and teachers, to discuss the real problems of the health and strength of the average boy or girl, as well as the supervision of the athletic few, and the matter of interest in physical education took care of itself, for the meetings of the physical education section were crowded. People can be interested in a practical thing; a further means of increasing interest was thru lectures by the physical director on the university extension plan.

The interest created was naturally met by the organization of a thoro course in physical education in the university. This course was taken in conjunction with undergraduate work leading up to the degree of B.S. The electives allowed to undergraduates covered the two solid years allotted to this course. The same kind of course should be introduced into all our state normal schools as well as universities.

Three years of pressing home the ideals of physical education thru the foregoing agencies resulted in a general demand for thoro training in physical education on the part of teachers turned out by the State University. At the end of the fourth year of such a campaign, out of the 150 applications to the department of education in the University of Nebraska for teachers, but six applications failed to lay especial emphasis upon the knowledge of physical training as a qualification of the teachers sought.

The foregoing items deemed essential can only be secured thru the development of a national system of physical education, working down from a national university thru state universities, normal schools, high schools, and public schools. This is the only answer to our needs. It succeeds in Sweden, Germany, and even the youngest sister among the nations—Japan—is fast perfecting a more thoro system than obtains in this country.

Such a movement must be developed from above downward, and from below upward: From above downward, by the establishment of a national institute of physical education as a part of our national university at Washington, a place for research in the physiology, hygiene, and psychology of exercise, and where its adaptation as a preventive agency and as a curative function may be investigated by advanced students, a place for the final preparation of directors of physical education for state universities, state normal schools, and for public-school supervision in large cities.

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[1] *Vide* Hastings, *Manual for Physical Measurements*, 1902.

In each state normal school there must be provided a course of three or four years of solid work for the training of physical directors of public and high schools, who shall serve as assistants under the general supervisors of physical education in large cities. These normal schools must, in addition, require thoro training in physiology and hygiene of all teachers, and enough practical work to keep the prospective teacher in health, and enable her to give all the practical work to be taught in grammar-school grades.

From below upward, the fruit of this systematic training in public schools will result in an increasing number of teachers with healthy, well-trained bodies, to whom the practical gymnastics is not wearisome labor, but enjoyable exercise. The prospective teacher must not be a member of the awkward squad made over for self-development or philosophical interest, but a healthy, well-trained, well-poised, wholesome individual, having grown up in this work.

With a thoro corps of teachers with solid training, theoretical and practical, from above and from below, and with effective organization and supervision thru a national bureau of control, national health is an assured fact.

But we have no national system of physical education; we have no national correlation of forces responsible for the organization of either the content of such a system or for the supervision and adjustment of the relative function of departments.

This movement does not demand so much expenditure of money as good executive handling and energy.

The chief essentials are a model gymnasium, a well-outlined course in physical education, the employment of experts from all over the United States for technical lecture courses, in addition to the work of the regular university faculty in the national university at Washington, the employment of special lecturers for university extension work in various states, and above all an efficient director of physical education to plan and execute the whole.

An appropriation by Congress for this gymnasium and a few thousand per year judiciously spent would in ten years change our hit-and-miss methods into the beginnings of a very respectable national system.

To summarize: In order to prepare teachers for the successful prosecution of this work, the following agencies are essential:

1. Regular courses in physical education of from two to four years in the curriculum of every state normal school and in leading private normal schools for the training of public- and high-school physical directors and for the health and training of the average teacher.

2. Similar courses in every state university and in leading private

universities for the training of college and preparatory-school physical directors.

3. A National Institute of Physical Education connected with the National University at Washington, for research in physiology, hygiene, and psychology of exercise, and in the adaptation of exercise as a preventive, curative, and developmental agency, where directors of physical education for universities, normal schools, and for the public schools of large cities may be trained.

4. The development of a strong department of supervision and university extension under the Bureau of Education at Washington, with an energetic departmental head, who shall act also as head of the National Institute of Physical Education, and plan and execute the whole movement.

In closing, allow me to move the appointment of a committee to memorialize the next United States Congress, presenting the urgent demand for governmental action in securing national health and vigor thru a national system of physical education.

SHOULD THE TEACHER OF PHYSICAL EDUCATION IN PUBLIC SCHOOLS HAVE THE TRAINING OF A PHYSICAL DIRECTOR AND INSTRUCTOR IN HYGIENE OR THAT OF A PHYSICIAN?

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No one can fail to recognize today the tremendous changes that are taking place in the popular mind as to the exact function of education and the province of the medical and clerical professions. In the recent meeting of the American Medical Association in Chicago the president in his address took the ground that "a new duty of the medical profession was the education of the public in scientific medicine." At the same time a large assembly in Boston, mostly clergymen, the so-called Emanuel Church movement, were advocating the value of prayer and auto-suggestion as a means of alleviating the mental and physical ills of mankind. Health in education, for education, and by education, has long furnished a series of diversified themes for educational conferences. It would be futile for me in the brief time allotted to this paper to attempt to trace the causes that have led to these great changes in the fundamental conceptions of health and disease. As long as sickness, suffering, and death were regarded as dispensations of Providence—which only the intervention of the priest or the medicine man could relieve—all efforts toward the prevention of disease were of little avail. The people of the past were overawed by fear, superstition, and ignorance—and in many cases the ministers and physicians knew that they were powerless to help them. With the knowledge that has come to us thru the advancement of science, more particularly through the discoveries of the microscope, all this has been changed. We now know the cause of much of our ill-health and inefficiency and the origin of very many diseases. The responsibility can no longer be shifted on to Fate or Divine Providence. It rests largely upon the enlightened members of the community, and educators, ministers, physicians, and the professions generally are morally bound to take their share. The question for us to decide today is, How shall this responsibility of health in education be divided? In other words, "Should the teacher of physical education in public schools have the training of a physical director and instructor in hygiene or that of a physician?"

As an aid to the solution of this problem, let us turn again to the discoveries of science and the records of experience. From an educational point of view the objects of employing either a physical director, instructor in hygiene, or a physician in the public schools are presumably the maintenance of health, the elevation of the normal standard of living, and the prevention of disease and premature death. The causes that are most likely to interfere with health and invite disease and death may be divided into two great classes that occur with about equal frequency. These are termed (1) intrinsic or constitutional, and (2) extrinsic or environmental. The intrinsic causes or the diseases that arise from within may be due to the defective structure of one or more parts of the body inherited or acquired, or they may be due to the failure of one or more organs properly to perform their functions. In either case we may have rheumatism, gout, scrofula, etc., occurring on account of defective structure, or we may have defective structure and consequent disease arising from feeble digestion, poor circulation, disordered liver, or weak lungs. Where a feeble structure or imperfect apparatus is inherited, this may lead to a constitutional disability which is very difficult to overcome. It may take generations of right living to do away with a family taint or weakness.

What our schoolboy athletes often do when left to themselves is to test or try out those who are constitutionally strong, and separate them from those who are constitutionally weak. Yet it is in the perfecting of structure, the improvement of function, and the building up of constitutional vigor—as I shall hope to show—that the great opportunity for the physical director lies.

The extrinsic or environmental causes of diseases arise, as the name implies, from external conditions. These may be anything or everything that occasion accidents—as heat, cold, fire, water, wind, storms, blows, falls, and poisons. The principal causes of the diseases of extrinsic origin are now known to be germs that invade the system from without. Such is the origin of smallpox, scarlet fever, diphtheria, pneumonia, typhoid fever, and tuberculosis. Now it is the province of the hygienist to acquaint himself with all the agents of health, the nature and scources of food, water, and air, and inform us of the best location for schools, habitations, the best methods of lighting, heating, ventilating, plumbing, and what occupations are beneficial or injurious to health, while it is more particularly the province of the physician to inspect the school children and look for the first signs of disease which his experienced eye may detect. The examination of the skin, eyes, ears, teeth, and throat may not only lead to the discovery of local and functional defects which are impairing a child's mental and physical efficiency, but it may lead to the discovery of a case of scarlet fever, or diphtheria which if not speedily removed may be the beginning of an epidemic. The child so afflicted should not only be removed from school, but the source of the disease, as far as possible, should be traced to its fountain-head. When discovered, a further responsibility rests upon the physician and the board of health, to see that the disease does not spread thruout the community. Here then would seem to be a natural division of labor in a very large subject—a subject that touches the lives of all the people and the occupations of the farmer, the manufacturer, the tradesman, the architect, the builder, the transportation agents, and very many more. Indeed the subject of hygiene in all of its ramifications is so vast that no one man can begin to master its details.

We have said that the causes which occasion disease and death may be divided into two great groups—constitutional and environmental. But we know that men of a vigorous constitution do not always succumb to conditions and diseases due to environment, while those who are weak or have a feeble constitution are not only the first to contract the diseases that enter the system from without, but are also the first ones to succumb to diseases that arise from within. This complicates the problem. Inasmuch as the children of the public schools represent the weak as well as the strong, come from homes that may be sanitary or unsanitary, and live in communities that may be active or indifferent to the requirements of public health, the health specialist, be he a physical director, hygienist, or physician, must broaden his field of observation. In other words each of these specialists must know something of structure, something of disease, and something of environment, in order to comprehend and meet intelligently the problems that arise in his own sphere of action.

The chief province of the physical director should be to make the weak strong, the crooked straight, the timid courageous. He should strive by every means within his power to develop harmoniously all parts of the body. He should improve as much as possible the functional capacity of the vital organs and internal mechanism—including heart, lungs, stomach, brain, and nervous system. He should increase the power of the neuro-muscular system for self-preservation, skilled labor, and for educability in the arts and sciences. Finally he should endeavor to increase the constitutional vigor of his pupils, and augment their power to withstand fatigue and resist disease. In order to accomplish these manifold results, some of them appearing to be almost antagonistic, the physical director should have a broad and liberal education. He should be well grounded in English and have a reading knowledge of French and German. He should be familiar with elementary physics, chemistry, zoölogy, and botany. For professional studies he should have taken courses in anatomy, physiology, histology, personal and school hygiene, and the hygiene of occupation, anthropometry, physical diagnosis, applied anatomy, remedial and corrective gymnastics, and massage. He should know how to meet emergencies and have had some practice in bandaging. He should know the theory and practice of physical education and the principles underlying the different systems. He should also be familiar with the theory and practice of athletic training for different sports and events. He should be a student of psychology, know the history of general education as well as physical education, and be well acquainted with the principles and practice of teaching. He should have made a study of children, know the nature and philosophy of play, and recognize its importance as a great social and educational factor in our civilization. He should also be a student of environment, and be familiar with the social problems, and know the evils that beset the young in the country as well as in the slums of the great cities. In order to round out his theoretical knowledge he müst also know something of the organization, construction, equipment, and practical management of gymnasiums, playgrounds, running-tracks, athletic fields, etc. Finally, all of this knowledge will be of little avail to the physical director unless it is grafted on to a previous training and practical experience in some of the many forms of calisthenics, light and heavy gymnastics, plays, games, and athletic sports. The want of this practical all-round training has brought many an educated physical director to grief, while the possession of this practical knowledge, supplemented by a little tact, and a pleasing personality, have often made the athletic trainer without much theoretical knowledge a great success. The man who comes the nearest to the boy in his physical life, aids him in his sports, and sympathizes with him in his ambition to excel in them has a greater power for good or evil over that boy than any other member of the school board or teaching staff. When we consider that the natural desire of boys to run, jump, play, and compete with one another in all sorts of active exercises is fundamental and to be encouraged if we wish to develop them into men—that it is only the abuses, excesses, and injudicious practice of otherwise healthful exercises that bring about the evils so much deplored—it would seem that in the intelligent direction and supervision of these youthful activities there is a field for the establishment of a new profession. Many physical directors have met the qualifications I have enumerated and have already entered upon the practice of this new profession in many of the schools and colleges of the country. Educators are already recognizing the social, moral, and educational value of the services of well-trained physical directors, and the demand for such men at high salaries is much greater than the supply. In order to meet this practical difficulty in obtaining well-trained men, school authorities are forced to look to athletic trainers, professional gymnasts, book hygienists, or young physicians, because they are most available, as the men who are most likely to render the most desirable service. Each of these specialists may be capable of doing good work in his chosen field but none of them measure up to the qualifications of the instructor of physical education for the public schools. The athletic trainer is expected to enable the school team to win prizes or victories. He cannot sustain his position unless he does—for the one thing impetuous youth can never realize is the possibility of the rival school having better men. The trainer has learned this fact, and his chief function now is to discover and exploit the superior qualities of the few, rather than to improve the physical condition of the many. The gymnast bases his reputation upon the "stunts" or "feats" which, on account of long years of practice and highly specialized development, he has been able to accomplish. He must therefore necessarily have a small following. The tact and ability to make elementary work attractive, which is the only way to hold the masses, are arts which the professional or star gymnast never seems able to acquire. The book hygienist teaches his lessons—as some persons teach ethics and the Bible—by words rather than through deeds, conduct, and behavior. The teaching of hygiene without the practice of hygiene is worse than useless. If preceded by the study of anatomy and physiology, as it should be, it often leads to a morbid curiosity and habit of introspection which in young people had better be allayed. The best way to teach hygiene is through the physical activities. Physical training under proper instruction is applied hygiene pure and simple in which the ambitious boy learns what to eat, drink, and wear, how to bathe, sleep, and exercise—in other words he learns the correct habits of living. Let it never be forgotten that the grandest people physically and intellectually the world has ever known were nurtured and developed by the practical observation of these simple hygienic measures. The weakness of most of the teachers in book hygiene is that they try to read into their lessons what they have never known, lived, or experienced in their daily lives, and the pupils are bright enough to see the hollowness and insincerity of this method of instruction.

The physical directors who are now holding the prominent positions in the country have for the most part been college-bred men, who have supplemented their college education and fine all-round gymnastic and athletic training with a three- or four-years' course in medicine. The medical degree being the last one usually obtained before accepting a prominent position, the impression has gotten abroad that it is the medical education that has qualified the physical director for his job. I regret to state that in all of my experience in the physical work, dating back over a period of thirty-five years and embracing a personal knowledge of several thousand students and teachers, I have not known of a single instance where a medical man or physician has made a success of teaching physical education, without a previous or subsequent technical training in gymnastics and athletics. Many have tried to acquire the technical training late in life or when they were too old for it, and have given it up, and returned to the practice of medicine. Many physicians have assumed the position of medical examiner or school physician, medical inspector, or medical visitor, and physician and surgeon for the sick and injured on the various athletic teams, and many have given courses of lectures in schools and colleges on physiology and hygiene, first aid to the injured, and social purity. In all of these positions physicians have rendered valuable service to the school, the family, and the community. This is the kind of work which physicians as a class from the very nature of their medical education are best prepared to do. But where is the medical school that gives its students the technical and special training needed by the director of physical education? The training in the fundamental studies—anatomy, physiology, and histology—is essentially the same for both classes of students; so is the training in physical diagnosis and hygiene; but how different are the applications of the principles involved. The physician from necessity has been obliged to treat sickness and disease. He sees only the morbid and pathological side of human nature. Patients rarely consult a physician unless they are sick, or think they are. If he is called to see the healthy and athletic, it is usually to set a fractured bone, bind up a wound, or to treat some other form of injury. In order to keep up to date and be able to help the sick and afflicted in time of need the physician must spend his days and nights in the practice of his profession. This he is often obliged to do from economic reasons. The advice that he is able to give in the way of prevention of disease is often worth more than the treatment—but the treatment is the only part of the consultation that the average patient is ready and willing to pay for. For the traditions of the people in regard to the treatment of disease, the medical profession of the past is largely responsible. To the honor of many of the present-day medical practitioners be it said that their chief efforts are in the direction of the health education of the people which often tends to render their medical services unnecessary It is just here that the work of the physical director anticipates that of the physician. The vast majority of those whom the director sees are in good health, or in conditions varying slightly from the normal standard. His aim is not only to keep them well and prevent disease, but to lift them to a higher plane of living, morally and intellectually, as well as physically. To do this he must use all the agents of health available, and by improving the functional activities of the individual, build up, broaden out, and reconstruct him generally. The teacher of physical education who would accomplish this work in the public schools or colleges must have all the vigor, energy, and technical ability of the physical director, most of the book knowledge of the hygienist, some of the scientific attainments of the physician, combined with a great deal of the moral earnestness and devotion of the Christian minister. This is the kind of man the world of education is waiting for. This is the type of man needed in the new profession.

DISCUSSION

Arnoldas H. McClure, superintendent of city schools, Yuma, Ariz.—In this country of freedom and patriotism, preachers, doctors, and lawyers are all important, but the teachers are the most vital forces in the development of this American civilization. The best men of the country today are devoting their lives to educational questions, and in the study of these questions the child is the center. If there is any way whereby we can get a little nearer the child we can then do more for the child. There is no part of our great educational system so thoroly enjoyed by the boys and girls of our public schools as the systematic physical training. School inspection is the part of the physician, while the physical director should supervise the sports, games, and various physical exercises. If our child becomes sick, we naturally want the physician to treat the disease; if we want a piece of furniture made we will call upon the cabinet-maker, and not upon the blacksmith or oculist; if we want a suit of clothes made, we engage the tailor without a moment's thought of assigning the task to the dentist or a veterinary surgeon; likewise if we have a case in court we consult and employ a lawyer in place of a preacher, tho I will admit that at times the consultation of a preacher would be the wiser course for the client. This is naturally a day and age of specialists. In our colleges, when a professor of Greek is employed he must be a Greek scholar, and he is employed because of this fact and not because he can read and speak French, Latin, or German. So if we want a physical director, it is just as important, and in my estimation more so, to engage a man who has the training of a physical director. I do not contend that he will be any less capable as a director of athletics, etc., should he have the title of M.D. A horse on the racetrack with the greatest pedigree in the world cannot win the race unless he can trot. His pedigree of course will be no burden to him, if he can trot fast enough to win. The all-important point is that the director of physical education in our public schools should have the training of a physical director and possess the knowledge of an instructor in hygiene. He should be a man whose whole soul would be in the work. He should be one who lives on "the sunny side of the street" and can say, "Come on." The generals who have won the greatest battles have been men who led their armies to victory rather than the ones who failed of courage and tried to drive their men into battle. A great leader is as inspiring to the ones being led as is soul-stirring music, and especially is this true in athletics and the many forms of physical training. The part of the physical director is to do away with the physician.

We may take the family of the doctor and almost invariably we find the children below normal in physical strength and health. On the other hand, look at the man of athletic disposition and we find a family of superior strength and active minds, defying physicians. A physician may know how physical training should be carried on and to what extent, but all this is but a dead letter on the books if he cannot enter into the activities himself. Children are great imitators and are ever ready to follow, but like grown-up children they are fearfully stubborn if you undertake to drive them.

I find that the most popular teachers in my city schools are those who have had a course in physical training or who participate in and promote the sports of the children. Not only are they the most popular teachers but they secure better results in the classroom. These better results may be attributed to two facts: First, because the teacher herself has taken into her life the proper physical activities so essential to an active mind; and second, because her pupils love her and are ever ready to comply with her directions. Her room is always the best-disciplined room in the building. The teacher never grows old, but every milestone passed counts her so many years young. I am sure that this is the reason all the ladies assembled here this morning look so young. It has become a habit of mine when away from home to tell how good we are out in Arizona, and realizing that this great city of Cleveland is so far from that land of sunshine, and, may I add, happiness, if I tell you things that seem impossible I do not fear any contradiction from the fact that none of you have been there to realize whether they are true or not. Therefore, I will say that we have a school system second to no other school system in the country; we pay better wages to our teachers than any other state in the union; the percentage of professionally trained teachers in the schools of Arizona is more than double that of any other state, east or west; there is more happiness and sunshine in the life of the Arizona school teacher than is enjoyed by any other teacher in the world. Our teachers come from the cream of the profession from every state and section of the country. In the contribution of this excellent system of education physical training has had no small part, for our people early realized that in order to develop the strongest mental child it is necessary to develop a strong physical child, and physical training has been carefully looked after.

We find that in developing the physical child, life becomes more real to him and the task of discipline has been solved in the most satisfactory way. I believe the time is coming, and that in the very near future, when all teachers will be required to possess a knowledge of systematic physical education and that this branch will be placed on an equal footing with the most important branch in the curriculum. In the city of Yuma, physical training was introduced in a systematic way three years ago in our public schools and weak boys and girls have become strong, irregularity in attendance has been done away with, children who never attended school are now interested students, boys and girls who were leaving school before completing the eighth grade have re-entered and are enthusiastic high-school students, and our people are so alive to education that the surrounding districts in both Arizona and California have acquired this spirit, and students are entering our schools from these outlying districts in such numbers that our board is having trouble in erecting school buildings fast enough to accommodate this increase in attendance.

Systematic physical training will accomplish as much for any other small city school if properly directed.

May the physical-training directors here unite in the dissemination of that physical-education spirit until before the assembling of our next annual meeting our good work will have been implanted firmly in many new fields of this great American civilization.

ELEMENTS OF STRENGTH AND WEAKNESS IN PHYSICAL EDUCATION AS TAUGHT IN COLLEGES

G. STANLEY HALL, PRESIDENT OF CLARK UNIVERSITY, WORCESTER, MASS.

A certain boy I knew well, who had won a few petty trophies at the preparatory school, resolved, on entering college, to cut out athletics and go in for scholarship, which had suffered from his sports. He was eighteen, weighed one hundred and two, and was a trifle over six feet tall, yet had won a pole-vaulting contest and so was beset to enter the intercollegiates in this neglected exercise. He at first refused, but was told that the honor of the institution was at stake and that it would be rank disloyalty to refuse. At the end of the freshman year the result was two more trophies and two varicose legs, requiring two elastic stockings. The sophomore year he tried for the crew and also for the eleven and the nine, and, fortunately, failed to make either. Overworking in the gymnasium, and doing the giant's swing, one day he fell off the bar and double fractured his lower jaw, which was wired together and all the teeth saved. He was in the hospital four weeks, taking all his nourishment thru a straw. His mates consoled him by telling him that the form of his jaw and chin was improved by the operation, but he could not set it firmly enough to resist the coaxing of his athletic friends. And so junior year he became a strong man and tied with another in the strength tests of the year in the New England colleges, but strained his heart, thereby was home six weeks, and fell back a year in his classes. When he graduated, after five years, at the age of twenty-three, he had three so-called silver cups, five medals, several ribbons representing several first, second, and thirds in things, two enlarged calves, one improved jaw, and an irritable heart. He took up the study of medicine and when I asked him why, he said with a faint, sad smile, "Well, it may at least be handy to be able to practice on myself, or," he added, after a pause, "possibly my children, if I ever have any, will need my services."

His parents were powerless against the claims of duty to win glory for his Alma Mater, and I will not attempt to describe their feelings toward the system. This, I grant, is an extreme case, but I know many others, and you trainers and heads of gymnasiums probably know many more where grave injury has resulted from the very pressure put upon the one-tenth or less of immature collegians who have to uphold the athletic prowess of their institutions. Many, like this husky chap, are too young to bear the excessive strain of the teams. The glory of possible victory and the stimulus of cheering thousands on the bleachers is too tonic a stimulus. You may talk all you will and keep ever so close tab upon heart, lungs, and guard against rupture, strain, and cite ever so many cases of college champions who have escaped unscathed, but there is a darker side to the picture and this is the first element of weakness that I urge. Neither art, from the Laocoöns down, nor the illustrated studies of the physiognomy of the emotions afford any such facial expressions of physical agony as photographs depict in the faces of athletes in the climax of their efforts, and the nerves and muscles of collegians are not ripe for the strain too often put upon them. The training of these men is physical cram and the reactions from the training-table and the severity of preparation are dangerous to the physique and to morals. Only those by nature beefy can come out scathless, and even Schweinfurths are sometimes coarsened; while to become wonted to the intoxication of victory makes life seem for a season afterward dull and zestless by contrast, especially in the American air and with the American nerves, both so unlike the English or German. Do these few men get the most and best out of four academic years on the whole? I do not think so and I could take the rest of my time telling how heartily some of the parents of these lads agree with me. That there are great and offsetting advantages to some of these defects, we all know by heart. And it is these which the public and such meetings as this always hear most of, but there is an athletic madness, and it is for the silent over-specialized victims who suffer from the system that I now speak.

Athletics and physical training should be a school of honor, not of dishonor. Which is it today? The latter seeks to win at any price; the former was illustrated by the oft-quoted English tennis champion in an international rubber game, who, when his antagonist slipped and made a fluke which would have lost him the victory, made one himself on purpose to offset it, preferring to lose honorably rather than to win on an accident. The history of physical culture, from the Greeks down, shows that in its best periods, it has been animated by the ideal of making men gentlemen. The true sportsman would infinitely prefer to be beaten than to win unfairly or by any trick or cheating. Codes of honor differ, but the spirit of all rules of all games is so to play that the intrinsically best man or team shall win. Honor should be the very religion of the gymnasium and the athletic field. The best definition of it that I know is that it is an instinct for ideal conduct. It would first of all be magnanimous to a foe whether in victory or defeat. It is not to be too shrill or strident about technicalities and never to claim or accept a victory upon these alone. To my mind faculty committees are as much justified in requiring a somewhat higher standard of conduct in the members of their teams than for others, as are trainers in requiring a better regimen and diet, and should disqualify for any sign of sneaking meanness. These men must be true representatives of the spirit of the college, and it deserves to lose if any kind of favoritism of family or money put any but the best men forward, and these men must not break moral training. For the president of a great university to have insisted upon this the other day against the President of the Nation was the most wholesome illustration of this principle we have had for years, and its effects will be salutary and long. Perhaps there is no greater hero worship in the world today than that of the rank-and-file collegians for their successful champions, and therefore it is of vital consequence, ideal as this may seem, that they should be so far as possible heroes of virtue and character. If they are dissolute, great is their influence for bad.

Do you ask for the ultimate reason why the college athlete should be a gentleman or high priest of honor? I reply that, apart from the fact that his example is so potent, so that if he can be bad and win, all the arguments of the classroom for the healthfulness of virtue fail for his mates and admirers, the muscles are the organs of the will and heart, which are the chief parts of the soul. Their culture closes the gap between knowing and doing. To keep them toned and tense means to make conduct follow more closely upon instinct and motive. Mien, pose, and gesture lay open the soul more and make acting a part harder. The inmost nature is better known and ready for life—is more demonstrative, and conduct is a larger part of expression than is quiet thought, example more than precept, and even the bad is less easily concealed or repressed, because the whole diathesis is more motor than noetic. Psychic tendencies are more revealed and in the open, and the motor type of man is more likely to be what he seems and to seem to be what he really is. For this reason there is more necessity for the motor-minded to be decent in order to seem so, because with them evil, if it exists, tends more to come out. Like muscular Christianity, muscular virtue is more overt and even aggressive. That is why this type of man has always best exemplified honor and why, when muscles decay, vice is more liable because it becomes more hidden. It is this harmony of mind and body, extending to the minor morals and manners and deportment, to all good hygiene and body-keeping, that physical culture should develop. The true sportsman would rather be a Lipton, always beaten and always a gentleman, than to be always successful, with the traits of some; for his conduct under every defeat has raised him a notch in the affections and esteem of two countries.

Physical education is for the sake of mental and moral culture and not an end in itself. It is to make the intellect, feelings, and will more vigorous, sane, supple, and resourceful. It should make for control and keep the body under and make it a servant and not a master. This it will never be until gymnastics is a department with its own courses, marks, and credits, the same as other departments. If a man is a born athlete, why deny him the same benefit of it as if he is a born mathematician, linguist, artist, or musician? It is plain that the academic side here must be developed. The culture history of physical education is a splendid field that we should develop in the classroom: not merely the ordinary rudiments of anatomy and physiology, but the great movements of ascetic contempt and neglect of the body, along with the splendid periods of its development in the palaestra and the *Turnfest*, the best age of which in both lands precedes by about a generation their golden age of arms, letters, and science. Always to keep at the very top of one's condition requires both science and art; history and biography are full of inspiring examples and awful warnings. These must be collected and curriculized that these professors in the future may have both brain and brawn, be virile and virtuous in the grand old Latin sense of these terms. Practical ethics of body and soul is the core of all. The history and psycho-physiology of military drill, dancing, the great national sports and games and their effects, the morals of measurements and tests, the psychology of periodic stripping and inspection, the relation of maximum effort to sex, drink, and in a clumsy three words—the psychologizing, ethicizing, and aestheticizing of athleticism is now its crying need. The ordinary medical side is not enough. Moral prophylaxis should be included. The love of plain living, of nature afield, should be inculcated, and something should be taught of the very interesting and suggestive topics of staleness, second breath, rhythm, stages of development, nervousness of the strong, the philosophy of training and reactions, the need of symmetry, and the dangers of specialization, the psychic characteristics developed by addiction to each of the chief forms of sport, that is, how the swimmer, boxer, runner, dancer, and the rest come to differ in character—these topics have now a meaty literture that should be brought together here. In this direction we are today like Bunyan's man with a muck rake, all unaware of the golden crown just above his head which he would wear upon it would he but straighten up. Now this high story of culture in this field is, save for a few happy and scattered beginnings, all undeveloped. When we have realized what is the matter here, we shall look back with poignant self-pity upon the present stage of materialistic beginnings. The Y. M. C. A. teachers of athletics have shown us how heart, muscle, and moral culture can be combined to the great benefit of each; and how worse than useless is strength of brawn with weakness of character; but the best is yet to come. Nothing could do so much to enlist the rank and file of students, the mere rooters, and also the grinds in body culture as such courses; for who could take them, if they began to utilize the resources available, without being inspired to make his own body stronger and his health better, to make the most and best of his physique as the best of methods of attaining any and every kind of excellence and power? Our colleges and universities must offer courses in which they can give degrees, even the highest, with this as a major subject. Every really scientific study which any of you make, whether in the historical aspects and phases of the subject or of the results of training on individuals or groups, the effects of age, temperament, diets, like the memorable New Haven studies, the just now so much needed studies of girls, make contributions to such a course. Could a few of the most scholarly and scientific men in this field now organize and compile, from the many now scattered sources, the material needed, and take the epoch-making step of organizing it into meaty, academic form, the problem would be solved. No one has done this and, till it is done, your best efforts are scrappy and incoherent. Is it not, in fact, your fault that such chairs and degree-earning courses are not sufficiently recognized by college dons and is it not up to you to remove the cause of your complaint in this direction, when, by combining your efforts, you could create a group of courses every college would feel guilty and ashamed not to give?

The athletic problem is becoming graver every year and only you can solve it. We heads of institutions cannot launch new courses on a mere librarian's bibliography of good but scattered references. So again, I say, get together and put together what is already accessible in a scholarly way and we shall all fall over each other to give it credits and academic standing. I wonder if there was ever in the whole history of higher education such a wealth of material so wanted but so unorganized, or any field where some learned and vigorous thinker, by a year or two of hard work, could so change the aspect of things? Physical training should be the very cornerstone of every sound educational system. Our college presidents and faculties are now pathetically helpless before the athletic problem, distracted and utterly powerless to control or utilize the tremendous energy now set free. These convulsive convulsions of the entire body academic are parturient struggles. A little skillful midwifery that can bring all this blind aesthetic enthusiasm to the birth into the higher cultural field—this is the need of the hour. In it lies concealed immense wealth of motivation to study hard and long a range of topics the most vital for personal and national health and well-being. Nor has there ever been so large an opportunity or so loud a call. Hippocrates said "God-like is the doctor who is also a philosopher." We might almost apply the same superlative epithet to a gymnasial expert who can also be a philosopher. Will this physical Messiah appear or must the work be done by many laboring slowly for half a generation? Sometimes the call creates the man, but such a call is always answered sooner or later; and with all the splendid fore-studies you have already made, it cannot now be long delayed. And of all the great departments of this great association, yours seems to me the surest ere long to see the great light or to have a great leader that will inaugurate this higher, more intellectual phase of physical education. What I have to say on the other half of my subject, elements of strength, is summed up in a single sentence —that you have prepared the way for such a consummation.

CRITICISMS OF THE TEACHING OF PHYSICAL EDUCATION

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[*Synopsis*]

Among the items presented for criticism of the present method of physical exercises in school and college are noted:

First, These exercises are not interesting. Most students find them stupid and stupefying. For the purpose of increasing their interest some of the elements of games should be introduced. Contests and rivalries should be promoted.

Second, The training should be made more individual. The physical deformities and idiosyncrasies of students in school and college are marked. Nine-tenths of students are more or less abnormal in body. Exercises, therefore, should be made more individual. They should be adjusted to the needs of each student.

Third, So far as possible physical exercises should fall into the normal living conditions of students. For many they now seem remote, out of place. They consume the time and strength without adequate result. Walking, for instance, should be so taught that the pupils can get both strength and fun.

Fourth, The range of exercises, therefore, should be made larger, the number of games increased. Outdoor games especially for the winter should be promoted.

Fifth, The interest of the members of the teaching staff in both school and college in physical exercises should be increased. Teachers have not come to recognize the value of the happiness of these exercises. They have come to recognize the value of manual training; they have not come to recognize the value of baseball, football, hockey, or any outdoor exercises.

Sixth, In this respect, too, both teachers and students do not appreciate the fundamental value of the sound body as one of the most precious assets of life and service. The worth of biography as inculcating this truth is great.

Seventh, The educational authorities who form budgets should be willing to devote larger sums to physical exercise. Such appropriations would naturally follow upon obtaining a clear idea upon the value of physical training. Enthusiasm now abounds, intelligence should increase. Increase of intelligence would result in increase of appropriations.

DISCUSSION

W. P. BOWEN, professor of physical education, Michigan State Normal College, Ypsilanti, Mich.—Let me say at the outset, that I fully agree with the previous speakers as to the elements of weakness in our work, and I believe that most teachers of physical training will agree that the present condition of high-school and college athletics is as bad as Dr. Hall has painted it. I would like to point out, however, an important cause of this condition that lies within the power of the college presidents, superintendents, and governing boards to correct, rather than we who are doing the teaching.

When you come to inquire into the actual cause of the professionalism in high-school and college athletics, you find, first of all, that it has arisen because the institutions have not furnished funds to carry on the work. No one would like to see every boy take part in baseball and similar sports, more than the teachers of physical training would like to see it; but when we try to carry out such a plan it is the rare case to find a college or high school that furnishes one baseball field, to say nothing about room for a hundred boys to play ball. In fact, it is almost the universal condition that the institution furnishes nothing, and leaves it to the coach and the team to finance their own sports. How can they do this? They have only one way, to go out in the commercial field and put up a quality of athletics that the public will pay to see. They soon find that the public demands one thing, and one thing only—that they put out a winning team; and so the present craze to win at all costs arises primarily out of the necessity thrown upon coach and team to make the money for their own support.

To give a single illustration: I know of a large university where this spirit to win is rampant and vociferous, and where the governing board, under the advice of the president, has never given one cent, either for buildings or grounds, to make educational physical training a possibility. The students have solicited money for a gymnasium and an athletic field, and have made thousands of dollars to carry on the department by promoting athletics as a means of revenue. Now, the president of that university complains that the boys carry athletics to excess. The fact is, the boys have been educated up to this very thing by the necessity of having to go out into the world of trade and put on the market the kind of athletics that will pay. Just as soon as superintendents, college presidents, and other leaders in education, who control the distribution of funds for various educational purposes, set apart enough money to support departments of physical training, as they do now support other departments, just so soon it will be possible for those people to dictate the quality of athletics, and to command the coaches and other teachers of physical training to give every boy the athletic training he needs, and to cut off the excesses. Until we can make these leaders see this point, and realize that it is within their power, and their power alone, to remedy the evil, we teachers of physical training will be obliged, as we have been in the past, to leave the great majority of students without the athletic training they need, while we help to exploit a few of the best, as a means of raising money. This is a deplorable condition of things, but the remedy is not with us. Give us the money that is absolutely necessary to provide for this work, and then compel us to do it as it ought to be done. Give every high school and college grounds where all students can have a chance,. demand educational rather than commercial results from coaches and teams, and athletic reform will come.

ELEMENTS OF STRENGTH AND WEAKNESS IN PHYSICAL EDUCATION AS TAUGHT IN PREPARATORY SCHOOLS

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It is my purpose to consider this subject from a general rather than a particular point of view. The fact that I am "outside of the profession," as Dr. Hastings expressed it in writing me, would make any attempt on my part to consider the subject otherwise in a measure presumptuous. But were I inside of the profession, I think my point of view would remain much the same, at any rate as far as this particular topic is concerned. Physical education presents to me the same general problems as any other field of education. It is not a thing by itself, outside of, apart from other phases of education. If I am able to contribute anything here, it must be in line with this proposition—that physical education is but one phase—a very important phase to be sure—of the whole educative process. I realize that the term, educative process, is a "glittering generality." But I intend to define it and to use that definition as the basis of my treatment of this subject. By the educative process, I mean that process by which a child, born as he is with a capacity greater than that of any other organism to profit by past experiences, is made fit for high service to his fellows. It is the idea of fitness that I wish especially to emphasize—fitness in its large, evolutionary meaning: physically, intellectually, spiritually fit. Whatever, then, helps to bring a child into more perfect adjustment to his physical, intellectual, and spiritual environment is educative. I place physical fitness first, not because physical education happens to be the question under discussion, but because I believe it belongs first. Whatever more we may be, we are, first of all, of the class mammalia—just animals; and to be a good, proper animal—to be physically fit—is the "first duty of man;" the old catechism of our ancestors to the contrary notwithstanding.

If we consider education, then, as the adapting of an individual to his environment, and if we are willing to look upon physical education as only one particular kind of education, whatever sound, general principles we are able to lay down to guide us toward the attainment of this ultimate end will serve us as a basis for judging the elements of strength and weakness in physical education. Now, in general, I believe we may measure any man's fitness by determining the nature of his incentives and the degree of his power. These terms, incentives and power, need no definition. But they do need some further consideration, for in using the term, process, we are dealing not only with aims but also with means. I have said that whatever helps to fit a child to his environment is educative; whatever means, then, we may use to inculcate high and permanent incentives in a boy and to increase his power to act and to enjoy is a worthy means. And the value of any particular subject of education is in exact proportion to the possibility of its yielding incentives and power—physically, intellectually, and spiritually. No one subject, or group of subjects, is capable of yielding all these incentives in the same degree. Geometry, for instance, seems to me to be rich in purely intellectual incentives, to develop purely intellectual power, and to be especially barren in respect to its productiveness of anything either physical or spiritual. We can easily conceive of a boy's wits being sharpened by a thoro knowledge of geometric principles, but we cannot possibly expect him to apply those principles with any degree of success if he finds himself unable to run a hundred yards, or to take the adverse ruling of a baseball umpire with equanimity. But however rich or barren a subject is, it is thus by its fruit ye shall know it.

Let us now turn from these general considerations to their application to physical education. The immediate aim of this particular subject is usually taken to be to guard and to promote normal physical development. But there is more to it than that; it is richer than that; it should make a boy more fit than just physically fit. There is no doubt, of course, that this subject is particularly and primarily rich in physical incentives and power, but I believe it is also capable of yielding richly in both intellectual and spiritual incentives and power. Fundamentally, intellectual incentives are those that make one desire to know, to understand, to interpret, to classify his experiences in an orderly, causal manner. At no time in life is one so beset with such a marvellous, bewildering, fascinating, vital chaos of physical experiences as during the so-called preparatory years—fourteen to eighteen. The consciousness of self, the mystery of being, the eternal forces of creation envelop him. He struggles to know; he must know. The richness, the fulness of his life, depend upon his knowing aright. He must know what he is physically; he must understand his body, its structure, its functions, its laws. Only by such knowledge can he guard and promote his normal physical being—can he be made and be kept physically fit. It is obvious that such understanding of the physical facts of life involves something more than purely intellectual reactions; something entirely distinct from those classifications and those adjustments made by the boy in his relation to such groups of facts as are presented to him, for instance, in his contact with mathematics or Greek syntax. Spiritual is the word I have been using—spiritual incentives and power. I do not use the term in any mystical sense. I use it to include honor, fair play, clean sport—all that a good sportsman is, that is all. And the term is not too big, I think, or too fine, for such application.

Physical education in our preparatory schools should aim, then, to equip the boys with good, sound, normally functioning bodies; it should aim to give them a practical knowledge of the laws that govern the functioning of their bodies; and it should aim to make them good sportsmen. These things it must do; these incentives and powers it must and can yield.

When I say it can yield these incentives and powers, I would seem to imply that it does not yield them now. But before I directly affirm or deny this seeming implication, let us examine the prevailing tendencies in this field of education, something of its history, for it is not fair, or educationally sound, to criticize any movement, any process, only as a fixed or completed thing; but first of all in light of its genesis and its growth. Such an examination for our purposes here will not take us very far back in the history of education as a whole, or at all into the rise and development of systems of physical education. A kind of physical education figured in educational schemes, I know, from early times: in the training of the Spartan youth; of the Roman soldier of the Republic; and the gladiator of the later Empire; the janizaries; and the mediaeval knights; but so far as the physical education of our own time is concerned, it is a new and distinct phase of education having its origin in our modern, competitive games. Certain teams were found to be pretty regularly superior—such teams as had, in one way or another, secured the services of a trainer, or coach. In order to compete successfully with those teams that had a coach, others got them, until that phase of physical training became the regular thing. In our preparatory schools the coach came to have charge of all the teams; possibly, also, he taught a class or two in algebra, or something of that sort. An increasing demand was made for this sort of man, more and more was required of him, and schools were founded and equipped to provide the necessary preliminary training. Other elements beside the desire to turn out winning teams entered into this development, helped it along, and modified its character: the demand for trained Y. M. C. A. and gymnasium directors; the gradual recognition of the value of some sort of physical training for all, instead of the few who made the teams. The tendencies have been in this field of education, then, much the same as in others: to extend the scope of the work; to increase the training of the teachers; and to give to it a larger and larger place and importance in the activities of the schools.

Altho the tendencies have been along good educational lines, the present status of physical education is, it seems to me, behind that in most other fields. This is what we might expect and what we should be satisfied with, if we considered time as the only necessary element in growth. The academic, or scholastic, activities in our preparatory schools have come to their present being thru centuries of toil and experiment. We have attacked them from the side of scope, and added subject after subject to the program until there isn't much of anything left to add; we have attacked them from the side of method, and developed elaborate systems of procedure—turned out teachers who could run a classroom exercise with the precision of an eight-day clock; we have secured men with A.B.'s, A.M.'s, and Ph.D.'s to do the work, and we have found that none of these things is sufficient, nor all of them put together. We are just beginning to find out that first of all we must determine just what we are trying to do—just what education means; then we must know the nature of the material we are working with. And right here is where physical education has not taken advantage of what has been gained in other fields and come up abreast. It has not yet ceased threshing old straw; it has not yet got big enough.

The way in which a man goes at his work tells a whole lot about what he thinks of it. Now, the way we go at physical education is a pretty good indication of what we think of that. We are interested in it, tremendously interested, and that is good. Our physical directors take hold of their work with a spirit that puts some of the rest of us to shame. I imagine that they are about as much alive as any of the members of our preparatory school faculties, and often considerably more so. And they pretty generally know how to do their work; whether they are trained under the German Turnverein, Swedish, Swedo-German, Jiu-jit-su, or any other system. They are good fellows, and the boys and all the rest of us like them. And that is all as it should be. But now let us see just what they seem most interested in. They like to turn out a good gymnasium class that does its work in form to the time of a piano; a good, snappy, football team; a basketball team that can throw baskets; and a baseball team that can knock home runs; for this is where their work shows up. And this is not all that it should be. We no longer believe that our history teacher, for instance, has done his whole duty when he gets the majority of his boys safely by their entrance examinations. We demand a whole lot more than that. We demand that he shall have made them live and feel with the great men of the past; that he shall have taught them to value high and unselfish service; that he shall have given them power to understand the progress of our nation; that he shall not only have fitted them for college, but shall have fitted them for life—made them better men and better citizens. It is not the strong boy who can make the team that our physical director must be most interested in, but the weak boy who cannot eat his breakfast without a stomachache; not the team that can win the most games, but the team that can play the hardest and the happiest and the cleanest. And not the team alone; but he must take his place with the rest of us, working with all the boys, not for honor-men or team-men, but for able play and able work, for fair play and fair work, for strong bodies, clear minds, and high motives.

At present it seems to me that too much emphasis is laid upon this matter of turning out winning teams. A night or two before the interscholastic meet held in Chicago on the 13th, I spent the evening with two physical directors. They talked a long time about men of their acquaintance all over the country. It was interesting to me to see that in every case they estimated the value of those men upon the quality of the teams they turned out. There is no question that a whole lot of good teams are developed. And that is a good thing as far as it goes. But the aim of physical education, as I have stated it, is bigger than that. All boys should be taught the structure, functions, and laws of their bodies; all should be taught to live every day in obedience to those laws; all should be given the training necessary to guard and to promote their normal physical development; all should live in the atmosphere of quick obedience, honest conduct, strenuous endeavor—vigorous work and vigorous play. Now these are some of the things that we want besides good teams. Some of them we do get, and the rest will come when we demand it sufficiently long and sufficiently hard. Results come where we place our emphasis, and our emphasis is now strongly toward making a few boys more fit to play games, not toward making all boys more fit to live well, and hard, and fair. We need such boys; we need them in our schools to counteract those softening influences that are creeping into contemporary educational thought and practice; we need them as men in our politics, our business, our schools, and our homes.

Let me say again, however, that I do not wish to seem to value strong teams less, but strong boys more. There is a lot of sound educational value, I believe, that goes into the training of good teams. But the educational trouble there is twofold: first, such training is too narrow; and, second, it is pretty sure to create wrong standards of value; for what we are much interested in and work hard toward, we lead boys, at any rate, to think we value highly. If we are most interested in turning out winning teams, and if our efforts go toward that end, then our boys are most likely to believe that we value winning more than anything else, and such a notion, however it may hold elsewhere, is in any educational scheme unwarrantably perverse.

I have attempted to show that physical education is but one phase of education as a whole—one part of the educative process, that altho this part of the process has already progressed in developing its possibilities, it has not gone as far as it can; that, at present, its emphasis is not only too restricted, but also placed at a point where it is likely to do harm; that the men, on the whole, in this field, while they are interested, alive, and technically well trained, have too little general educational training, and consequently too narrow a conception of the educational place and value of their subject. It may be that, in this presentation, I have given the impression that I see here more elements of weakness than of strength. I don't know, I haven't attempted to strike a balance. But whatever the impression may be, I believe in the work; I see in it great things. To me it stands first in importance and possibilities. And because I see much in it, I ask much of it.

ELEMENTS OF STRENGTH AND WEAKNESS IN PHYSICAL EDUCATION AS TAUGHT IN PUBLIC SCHOOLS

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To determine what may be either strong or weak points in physical training, we must ascertain first the condition of the average schoolchild and then the influences which this condition and the child's environment exercise upon its psychical and physical faculties. After that we can determine the postulates which they impose on education in general and on physical training in particular; lastly we shall see whether all that is presented as physical training meets these demands or does not.

The child.—During the five and a half hours which the child spends at school on each of the two hundred days of the school-year it must remain in the sitting posture more than three-fourths of the time. The results of this extended and regularly recurring physical inactivity during that period of life when the child needs motion to enhance growth and general vigor, more than in any other period of life, are retarded blood-circulation and insufficient respiration. If this posture is continued for years, anaemia and a certain degree of muscular degeneration are very often found developing and the inborn desire for motion is being obtused.

Since the so-called "correct sitting postures for reading and writing" will soon become tiresome, the child will seek relief in every imaginable sitting posture during the long school-hours. Experience and research have taught us that long sitting, faulty sitting, and unhygienic seats and desks have largely produced our present round-shouldered, gaunt-necked, flat-chested, and awkward schoolchild. The various positions of the feet which the child assumes in its endeavors to seek relief from tiresome sitting postures certainly do not improve the walking step of the child.

The mind, too, suffers through this uninterrupted mental strain. The studious child will, in the course of time, acquire a mood of earnestness and sedateness which is not at all in accordance with its age, while other children become indifferent and languid. Such children have been robbed of their youthful elasticity and happiness; their education did not include the essential features of a happy and auspicious childhood and adult life.

Let us determine now the forms of physical exercises that will counteract these evil factors and are practicable in classroom, corridor, assembly-hall, and yard.

The growing schoolchild first of all needs stimulation to growth and improvement of the tonicity of the muscular tissue. This can best be achieved through exercises of quickness involving mainly the muscles of the thighs, pelvis, and trunk. The continued and often faulty sitting necessitates repeated corrective exercises; physical inactivity produces awkwardness, and therefore dancing-steps and marching, as well as other forms of leg-exercises, are valuable to improve the skill of the legs, as will club-swinging and certain other forms of arm exercises strengthen and improve the skill of the arms. Exercises at the desk in the classroom, running, jumping, vaulting, and combative games in the hall or yard will improve the general skill, agility, and strength of the whole body. Combative and running games, and certain games with the large ball tend to develop physical power and endurance together with those psychical qualities that are of such great value in this present age: quickness of reaction, resoluteness, alertness, courage, and perseverance.

What are now the elements of weakness in physical training? They are either unnecessary forms of exercises, or forms which are one-sided in their effects when used *exclusively* as physical training. Under the former class, fall: motion-songs and the dramatizations of activities of animals, persons, etc. Under the second class, the one-sided forms come: first, *formal exercises*—tactics, folk-dances, Gilbert-dancing, Delsarte, calisthenics, dumbbell, barbell, wand- and club-drills, club-swinging, and corrective exercises; second, *less formal exercises*—games (play), field- and track-work, and exercises on fixed play-apparatus.

When the child has advanced from the kindergarten or from the unrestrained freedom of the home, into the first grade of school, it should have carefully designed and arranged wholesome and vigorous exercises at regular intervals for the purpose of counteracting the detrimental influences of its new environment.

The exercises must bring into play the larger muscles and must be of the simplest and most natural kind. The play-feature should be brought in whenever feasible in order to make the transition from unrestrained freedom to formal school-life easier and more agreeable.

Motion songs.—The mild forms of physical exercises usually applied in motion-songs cannot be substitutes for physical training because they do not bring out that degree of vigorous, rhythmical, muscular contraction which is so very necessary to physical welfare. They are valuable features of the kindergarten curriculum, it is true, but they will not suffice in the grades above, since the conditions are vastly different. The same can be said of the dramatizations of the activities of persons and animals, and in consequence these forms may be considered elements of weakness in physical training.

Forms one-sided in effect.—Forms of exercises that are more effective but whose effects are more or less one-sided.

Drills.—The drill is a sequence of exercises which the pupils must memorize and mechanize. The act of mechanization, that is, the period in which the pupils learn to execute and memorize a drill, is a mental effort. If this is performed between other lessons or immediately after them, the mind is being burdened instead of relieved. The more complicate and intricate the exercises and combinations are, the greater is the mental effort of the pupils during the mechanization of the same. After, however, the drill is once mechanized it is executed more or less automatically, i.e., without mental effort. The controlling work has then been transferred mainly to the spinal cord. In order to produce a reasonably exact and physiologically beneficial mechanical execution of the drill on the part of the pupils, the exercises must be practiced with utmost exactness in the beginning and as long as the mind is the controlling factor. For when once faulty movements have become mechanized it requires great will-power to correct them.

There is of course some physiological value in every well-balanced drill. The well executed marching-drill or military tactics has a good influence on the general posture of the pupils. The firm marching step imparts strength to the muscles of the legs. In addition to this, exercises of the individual, if properly applied, will promote quickness of response—but that is about all.

The effect of marching-drills on the psychical faculties and respiration and on circulation is small because the movements are simple and uninteresting and the muscular activity is half automatic.

The physiological value of all well-arranged calisthenics and dancing-drills is much greater, but since drills usually have an even rhythm thruout, and especially so dancing drills, the corrective influence is small. Great corrective results are furthermore excluded in drills because that degree of muscular traction, which is so often necessary to bring about corrective results, is not well obtainable in rhythmical work.

Psychologically, calisthenic drills are worthless because they are a bore, and as such detested or executed in an indifferent manner by the pupils, whereas the dancing-drills, especially the simple forms, exercise a somewhat better influence on the minds of the girls. The girls' desire for all forms of dancing is great, and they will take up these exercises more readily than the more strenuous forms. But I cannot conceive of a boy, a true boy, between twelve and fifteen years of age, taking any kind of dancing readily; this type of exercises is so very contrary to his character and his make-up, that it seems an injustice to this part of our school population to bring up boys in this effeminate manner.

The folk-dance is a transient fad and will disappear and make room for another fad in the course of time, like many others gone before, such as the Delsarte system. It is absurd to present to the American boy and girl the clumsy dances of the awkward European farmer as physical training.

Since there is nothing in the drill that will interest the child for any length of time, nothing for the child to strive for, no matter how often we may call its attention to the beneficial effects of this or that exercise, nothing that will create joy and happiness, it is decidedly an element of weakness in physical training.

Calisthenics.—Cut-and-dried "calisthenics" in the classroom, especially when the commands are read off a card or out of a book by the class-teacher in a monotonous tone of voice; when the exercises have the same time-measure thruout, and when the whole lesson is executed in the same place without any diversion whatsoever, are not much better than the drill.

Corrective exercises.—Corrective exercises are an absolute necessity to the schoolchild at the present time. The maximum contraction of the participating muscles exercises a slow and powerful traction on the skeleton. They are free exercises, pure and simple; the peculiar manner in which they are executed and the adaptation of them to the afflicted parts of the body has given them this specific name. That is the extent of their usefulness; they are of no further value. Their influence on the circulation and respiration is of minor import, owing to the fact that they are not executed in a quick rhythm. Since they are effective only when the child's mind and attention are concentrated intensely on this work, they are followed by mental fatigue. There is neither joy nor pleasure associated with them, and hence they imply rather hard work for the pupils if called for regularly and exclusively as physical training. When so administered, corrective exercises necessarily become a weakness in physical training.

Athletics and play.—Field- and track-work and games are the most natural forms of physical exercises. For this reason, as well as for their freedom from restraint, in connection with the fact that each form offers the pupils, young and old, something to strive for, with ample allowance for individuality and ability, they appeal to the pupil's mind. But even they cannot constitute a complete system of physical training (although some persons claim that much for them) because they lack a sufficient degree of the very necessary limitations, and the self-adjusting and *polishing* influence of scientifically arranged formal physical training.

The most rational forms of athletics were the forms used by primitive man in gaining a subsistence. They assumed a more refined character in the training of the Greeks, but they are just as inadequate to replace the present-day system of physical training as would be the Greek of 2,500 years ago to our present environment.

The advantages of play in general are many. The influence of all running games on heart and lung action is excellent and the enjoyment and pleasure which they create are, in the true sense of the word, "sunshine upon the child's mind;" they lack, however, the real strength-giving features. *Combative games* emphasize this element much better, but they disregard rhythmical breathing, owing to the often fixed condition of the muscles of the thorax. They do, however, bring out the manly character as well as dexterity and are therefore mainly designed for the boys.

Throwing and catching games, such as ball and bean-bag games are an excellent means of promoting judgment in vision and accuracy of arm motion, and can be classified into two groups: (1) those combined with running, and (2) those without running. All games lack corrective features and the refining influence of formal work.

Jumping and vaulting are splendidly adapted for promoting physical skill; weight-events develop strength but should be taken up carefully as they are apt to lead to an abnormal development.

Altho the character-forming, ethical, and social values of these exercises are great when properly conducted and progressively applied, yet they lack that wholesome educational influence which can be brought out only by the true teacher during class-work.

The desire for beauty of form is also more readily satisfied during class-work in dancing-steps combined with graceful trunk- and arm-exercises, in club-swinging, free exercises executed in divided order, and apparatus-work executed in good form than through games and athletics. We have not yet reached that stage where aesthetical good form is considered an essential factor in athletics, that is to say, where athletics is only a means to an educational end and no longer an end in itself.

Steadiness of hand, eye, and foot,and the utmost accuracy of motion in all conditions and positions of the body are qualities of immense value and can be acquired only thru a wholesome combination of play, athletics, and scientifically planned, methodically arranged, and accurately executed formal work.

Ethically the influence of play and athletics, when carried on exclusively as physical training, may become really unwholesome. The spirit which is thereby fostered at times gives rise to offense and rudeness and often develops an abominable spirit of caste.

Athletics and games possess few corrective qualities and since "specialism" is generally in vogue in America, much harm is often done thru athletics. For these reasons games and athletics, if resorted to exclusively as physical training, *are also elements of weakness.*

Every one of the exercises enumerated under "Exercises whose effects are onesided," excepting drills, are valuable and absolutely necessary units of a correctly arranged day's order; they must, however, be applied at the proper time and with a view to a correct proportion of the allotted time to their effects. When applied in this manner, these same exercises become "*elements of strength.*"

First unit.—Since the child is held in a sitting posture a long time, stimulating the circulation and respiration thru half-automatic exercises of quickness, that will at the same time relieve the mind of the nervous strain of study, should be the first unit of the lesson. Where only ten to fifteen minutes are allowed daily for physical exercises, this can best be accomplished by the following types, of one to two minutes duration:

1. Rising and resuming sitting position in quick succession with or without facing and arm-positions.
2. Quick alternate raising of knees.
3. Hopping on one or both feet with pendent leg in various positions.
4. Running on or from place.
5. Skipping or galloping forward or sideward in same manner as running from place.

Since the classroom is the last place to be resorted to for such exercises, for obvious reasons, exercises under 4 and 5 should be either continued into the corridor and hall, or, better still, out of doors wherever this is practicable. In the latter case leg-exercises should be progressively added to the running, hopping, and skipping. Only the rhythmical contractions of the larger muscles accompanied by the naturally resulting deeper respiration, and the moderate vibration of the whole body as brought by running and hopping, will result in a thoro oxygenation of the blood and a wholesome stimulation of the nervous system.

Second unit.—Tactics of one to three minutes' duration should follow for the purpose of restoring normal circulation and respiration and to insure good carriage of body and correct walking-step.

The simple forward, sideward, and backward step with or without facing, the marching of the open class, will suffice for the classroom, but, together with the wheeling of ranks, forming of members, and the evolutions of the open column, may be reserved for the hall and yard.

Third unit.—Corrective and other free exercises. Corrective, balance, and arm-exercises, with or without leg- and trunk-exercises, with or without hand apparatus in standing and walking, of four to eight minutes' duration should follow for the purpose of correcting faulty postures, developing general control, skill, and strength. To the ordinary corrective exercises of the muscles of the back, shoulders, and neck, the backward bending over the back of the seat with or without arm-movements, in sitting, should be added as a valuable adjunct.

I also wish to emphasize the importance of embodying into wand-exercises that peculiar resistance manifested by the arms toward one another or by both arms toward the trunk.

Club-swinging is commendable in the higher grades on account of the strengthening influence of the arm circles on the muscles of the shoulder-girdle and on the other auxiliary respiratory muscles. The arm and hand circles are also excellent for promoting the skill of the whole arm and of the fore-arm in particular.

Intermediate exercises of a less formal nature should be interposed between the exercises of this unit to break the monotony of the work and to animate the pupils to better effort. In the classroom the various forms of stepping, and facing, also reeling of arms with or without variations, now and then exercises in kneeling on the seat, and vaulting over the seat, with or without turns, will serve.

Fourth unit.—Athletics and combative games. Nothing in the line of athletics can be done in the classroom: we must confine ourselves to exercises at the desks and to the most simple forms of combative exercises. Two or three minutes of this kind of work will do. Lying supported, front or rearways, with extended arms on desks, with or without exercises of the head, trunk, and legs, and vaulting over the seat, will have to take the place of athletics in the classroom. Of combative games, "hand pulling and pushing with both hands," or with one, over the seat, can be used in all rooms, while "Bull in the Ring," "Fox and the Chicks," "Rooster Fight," and "Poison Snake" can be made use of in those rooms which accommodate two to three divisions of four to six pupils in the front or rear of the room. In the hall all combative games can be practiced, and in the yard they may be executed on alternate days in alternation with the simplest forms of athletics.

Fifth unit.—Games. When pupils are dismissed from physical training with flushed cheeks and eyes beaming with joy, they have undoubtedly enjoyed their work. This is the condition for which we must strive. Just the contrary is the case after a lesson that proved to be a bore to them or which has taxed their mental capacity.

Some of the suitable classroom games, besides the above-mentioned combative games, are:

1. Rising and resuming seats with or without variations as a competitive game.

2. The various running, skipping, and hopping, competitive games, up and down the aisles, with or without carrying objects and writing numerals, letters or words on the front or rear blackboards.

3. Transferring objects such as erasers, bean-bags, or rulers in sitting, standing, and running.

If a hall or a yard is available and the allotted time be long enough, the more valuable running, skipping, and hopping games with or without the use of dumbbells, clubs, and short jumping-ropes, in addition to the simpler games with the small and large ball, particularly those that employ a whole class and are regulated by a few simple rules, should be used.

I am opposed to all games in the curriculum of our grades that keep busy but few pupils, and also to those that are made intricate by an endless number of possible plays with a multiplicity of rules. Our children need running-games, which do not necessitate lengthy preparations of grounds, and do not offer opportunities for foul play.

Games closely allied with modern athletics should not be tolerated in the grade curriculum, because the impressionable, immature minds of the pupils of these classes are easily led into wrong channels.

This day's order has stood the test of time and has achieved all that is claimed in its favor; namely, education and training of the physical and psychical faculties of the child in conformity with pedagogical laws and hygienic conditions with the best use made of the scanty allowance of time.

Equally important as the above-enumerated points are the ability and preparatory training of the teaching-force, the allotted time and the location, equipment, and size of the places set aside for the physical exercises.

As long as the necessity of the training of the physical faculties of the young is not recognized by those authorities in whose hands education is placed, as long as this branch of education is not considered of equal value with the training of the mental faculties of the young, the funds which are set aside for physical training will naturally be in accordance with the place given this department in the curriculum.

The scanty allowance of funds for the department of physical education in many commonwealths will not suffice to engage the necessary number of trained instructors and in consequence the actual teaching must be executed by the class teachers.

I have found that the training of the students at many of our state normal schools in the branches of theory, methodology, and practice of physical training is not only wholly inadequate and insufficient for a healthy development of the department of physical education, but also wholly insufficient to enable the students to present physical training in an intelligent manner. These are two of the weakest points in our present system of education and we should exercise all possible pressure to bring about a change for the bettter.

The question of the allotted time for physical exercises is also one of vital importance. As long as the public-school curriculum is as extensive and as crowded and as one-sided as it is in many cities this present day, our recommendations and our plea for more attention to and for more time for physical exercises will be useless or will, at least, meet with resistance.

The scanty allowance of time for physical training, the use of the classroom for the exercises and the lack of attention to physical training in the state normal schools are also points of weakness in our school system.

DISCUSSION

Mrs. Francis Waite Leiter, superintendent, Physical Education Department, National Woman's Christian Temperance Union.—In speaking upon this topic, two phases should be considered: (*a*) The success of physical training as a feature of discipline in the life of the child, to be determined by results in and to the child; (*b*) The output of plans as a fundamental part of common-school education.

Under the first head is named the following:

1. Relief which daily physical work brings from the strain of school confinement, as well as mental application.

2. More healthful conditions through active circulation of (good) blood, and increased vitality.

3. Power of attention, readiness to acquire knowledge, promptness in response, self-control, and strengthened will-power which is the basis of forceful character.

As a benefit to the school, the acquired habit of ready obedience to commands has helped settle a very grave question for the average teacher—school government. Under physical education, government seems to take care of itself.

Where body-discipline successfully prevails, the question has been practically settled as to what is really the incubus threatening the safety and efficiency of the public-school system, as it exists today, of which we so frequently hear. It is not so much that pupils are heavily taxed, as that they do not know how to study—how to economize brain-power and time—how to concentrate the mind when at work, with ability to set mental tasks wholly aside when in recreation.

One of the greatest drawbacks to the progress of body-training in the "peoples' schools" is the fact that, out of the several systems, a system of physical training has not yet been evolved which will be as distinctively applicable to America as German methods are to Germany, and Swedish methods are to Sweden. If the advocates of the several systems would somehow unite on common ground, practically utilizing all, sacrificing nothing essential in any, one marked hindrance would be out of the way. May this speedily come for the highest welfare of the masses.

A department so far from being fully established in the public schools as is this cannot fail to cope with some prevailing weaknesses and deficiencies. At the present time, these more particularly concern the output of plans as a fundamental part of general education.

First and foremost, the incompetency of the average teacher in physical work, even under competent supervision, cannot produce the best for the child. Such service should not be required of the regular teacher, already burdened with multiplicity of demands. The time is not very far distant when pupils will pass daily under the educated specialist, and in a properly equipped gymnasium, even in ward schools.

The time given to this training, in the curriculum, is far too limited. This will be corrected when those bearing the responsibility of the schools more thoroly appreciate the vital need of an educated body, and have the hearty influence of parents back of them.

It is true, parents are not usually consulted as to what is best for the child in education. Physical training, however, is an innovation entirely outside of what is considered "learning" by the average patron, who thinks the child needs no more exercise than comes with the usual round of the day. The indifference, and even freely expressed opposition of parents has, in many instances, hindered the freedom of boards of education to incur necessary expense.

An "Open Letter to Mothers," issued by the Department of the Woman's Christian Temperance Union, is the outcome of a purpose to influence the home to active support of a phase of education which is so vital to the success of the child, in every sense.

Increasing prevalence of athletics in high schools does not tend to strengthen appreciation of systematic body-training. Even grade boys are showing signs of the fever. The omission of regular physical discipline in the high school, substituting athletics instead, is sacrificing the good of the many to the calling of the few. So far as this results, competitive athletics, in any form, is a serious hindrance to the well-being of the entire school. We are speaking of what the school-curriculum should make available to each and every pupil, from the kindergarten through the last year of the course.

The most serious weakness of physical education in schools for the masses is the fact that a very small portion of the pupils attending have yet received any benefit from the excellent plans which this National Education Association department commands. The latest statistics, furnished by the United States Bureau of Education, classify all centers of population of four thousand and more inhabitants as urban. These enroll in day-schools 5,441,213 pupils. All outside of these named centers of population are classed rural, and enroll 11,200,757 pupils. If physical education does prevail in urban schools, as is evidently claimed at rather random estimate, then, about one in three is being fully educated.

But, the truth is, scarcely one-third of these five million and more urban pupils are receiving what can be honestly classed as scientific body-discipline. This means that about one in eight of the sixteen million children attending our public schools is receiving more than a seriously one-sided education.

To reach the masses through the medium of the common schools, speedily, efficiently, and permanently, securing the best possible bodily conditions for each and every child under tuition, but one course, at this late day, presents itself; viz., *making this phase of education compulsory, by state legislation, for all pupils in all schools under public control.*

THE ESSENTIAL ELEMENTS IN THE TRAINING OF THE COLLEGE PHYSICAL DIRECTOR AND THE PUBLIC-SCHOOL PHYSICAL DIRECTOR

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In the broad view of this subject the essential elements in the training of the physical director for either college or public-school work must be the same as for the training of any teacher, plus a technical knowledge that needs to be somewhat different for the two grades of work under discussion.

I would say that as a prime essential we must have the fundamental qualities of character which are sought in those people who are selected to train the young. Nothing less than the best product of home training ought to be accepted in this particular. The whole problem of education is a moral one, and if the teacher be found lacking in those principles which have guided humanity in its progress upward in civilization, then we may expect nothing satisfactory in the product of our schools and we shall have a disastrous history as a people.

This moral training that starts in the home is carried to a more complete development in the contact of pupil with teacher and with other pupils, and in the mutual interplay of influences that make up school-life, so that I believe we may assume that a normal man of reliable character is the product of the home schoolroom and playground taken together.

We need not discuss the influence of the home, because in a certain sense the state has no control over the fireside; but when it comes to the activity outside of the home circle then the responsibility rests on the public.

That the teacher may exert a moral influence goes without question. The upholding of a standard by the teacher who comes into such close contact with the pupil as does the physical director will be vastly greater in influence than that of the teacher who sits at the desk, and by so much the more must the quality of character be demanded in such teachers.

It is conceivable that a good teacher of English or of mathematics might be lacking in some high qualities of character and his influence not be seriously damaging to the pupils, but this could not be possible in the case where the teacher is expected to advise the pupil on all topics pertaining to life and welfare, not only of the body but of the mind as well.

Then, too, the physical director must come in contact with pupils during their recreation, and this, we must believe, is the time of true character-formation in every child. The formality of the classroom leaves little to the initiative of the pupil, and, except in the way of example, little is accomplished save in those matters of mental training that are entirely removed from morals To prepare a lesson, to reproduce it accurately, to be receptive to instruction, to be eager to know, are qualities that may depend upon good morals but they in themselves do not represent high character. You can imagine the burglar exhibiting all of these qualities in preparing for a descent upon some good citizen's house, but when children meet on the playground and decide for themselves the rules of the games and the penalties for the infraction thereof, and when they enforce these rules under an appreciation of the disaster that will follow a failure to play under law, we have that essential training in morality and citizenship which turns out the best product that modern civilization can boast.

The director can teach how to minimize the importance of these rules of the game and how they can be avoided by tricks that will not be penalized, and thus debauch the morals, or he can see that the rules are executed in the spirit of fairness with which they were drawn up, and he can thereby instill respect both for law and for the spirit of fairness that must underlie all sports that are worthy of the name, for anything short of this means victory without desert and consequently without honor.

Next, as to the mental preparation of the directors of gymnasia: I believe it is desirable in all forms of teaching that the instructor should have something more than a mere technical knowledge of his art or science. Whatever he teaches must be taught with reference to the co-ordination of his subject with others, and in order to do his work in a spirit of helpfulness, not only to the pupil but to other teachers, he must appreciate something of the material that they are representing.

This means, then, a broad mental training that, in the case of the college director, must have led up to and thru a college course. For the public-school worker a college course is almost equally desirable, as it gives a broad conception of educational work and the broad sympathy not only for the pupil but for the workers in other departments.

It is possible that a person may be educated out of sympathy with humanity and become an educated fossil, a curiosity in the paleontology of education that might be used to point a moral and adorn a tale, but who is without influence on the growing boy or girl and who ought not to be tolerated in the departments under our consideration. But, fortunately for the child, such an individual is not likely to seek work as a physical director. In fact, he would be such a misfit that he could not tolerate the exuberance of youth, and youth certainly would not endure such a director. He must be relegated to the field of the dead languages or the dead sciences, or some other moribund subject. That a man might be educated out of all sympathy with humanity is not the fault of the man, but of the educational system.

But we are not here to criticize the pedagogical methods of the college or university.

The college physical director must have had the experiences of college life, and he must have had them in a healthy way or he will fail in his influence with collegemen.

In addition to his college training he must have such knowledge of the human body as is imparted only in the best medical colleges of the country.

I am aware that there are normal schools that give thoro courses in anatomy and physiology, but there must be an appreciation of the defective animal as well as of the normal animal if a director is to be really competent to advise in matters of health, and I conceive that this must be the reason for the establishment of physical training in a college. The men are mature enough to supervise their own games; they care little for the careful technical training in gymnastics, in fact, they are apt to rebel against any thoro work in this line, but they do seek advice in all matters of hygiene. And hygiene is not a subject that can be treated like a cheese at the store from which slices are cut to suit the customer, but the subject must be handled with due deference to the physical peculiarities of the individual, and not only of the healthy individual but more often of the abnormal body.

In the public-school service the demand for medical knowledge is not so great as in dealing with the higher classes in educational institutions, but the emphasis is here laid on technical exercises, the assumption being that the child is still in the family with the oversight of parents, and that any deviation from normal will be cared for by the family physician. The personal contact with the child is less intimate than with the higher-grade pupil, and the control must be more mechanical and to that extent less satisfactory. The graduate of the normal school of physical training, as organized and existing today, will be satisfactory for the public-school director where he would not be for college work.

The training in gymnastics and athletics must be of a thoroly practical type so that the director may understand fully the strain that is put upon young men in both gymnastic and athletic exercises and may safeguard the life of the young individuals. I recently witnessed a most sad illustration of carelessness in training that has ruined the career of one of the most promising physicians of the country. He was unaccustomed to vigorous physical exercise, altho of large size and naturally strong. He seemed a suitable candidate for the boat-crew and began training for it. He gave up in two weeks because of severe pain in the region of his heart and general indications of muscular rheumatism. This happened seventeen years before he had any serious symptoms of overstrain, altho he knew all this time that he had a slightly defective heart. Suddenly a vegetation of the heart-valves became loosened and floated in the blood-current to a small artery in the brain, and he was completely paralyzed in one side. Such a record from training that ought to make better men is a reproach to the institution where it happened, where there is no special supervision of the athletic teams and no restriction placed on the work that the trainer cares to impose. And the trainer is an illiterate individual who probably does not own a single book, except his pocket-book, and he needs that for the high salary that he draws.

Just a word as to a fad among some of the gymnasium directors of the day under the head of "research work." The more I see of such work the more I regret that people unskilled in observation and ignorant of the mechanical principles involved are undertaking to issue information on matters of vital importance. An illustration of this has recently been shown in a physical director who finds that the men of a class entering college who have used tobacco are taller, heavier, and with greater lung capacity than the men who do not, and he is quoted without contradiction as stating that he does not believe tobacco injures growth, except in individual cases, which he concedes. This remarkable output of "research" into the influence of tobacco on growth is characteristic of much material that is put out in these days of free publication, and there are yellow journals exploiting pseudo-science that are always ready to give publicity to the work of these pseudo-scientists.

In the case mentioned it would seem that any fair mind that is in the habit of exercising itself would appreciate the fact that statistics gathered in this particular way show absolutely nothing as to the influence of tobacco on growth, for boys of larger size would be permitted to smoke by parents and guardians while stunted and imperfect boys would not be allowed this same privilege of bearing an unnecessary physiological strain. When the average of the group is determined, the smokers are larger, as might be anticipated by any individual who has any knowledge of collegemen.

To determine the probable effects of the use of tobacco the groups should be studied for definite periods like one or two or four years while they are living essentially under the same conditions. If then the group of tobacco-users could show that they had gained more in height, weight, etc., than non-users it would seem fair to conclude that there was an advantage in its use, and we who are somewhat opposed to this particular habit on physiological grounds would be obliged to change our attitude and recommend it as a drug for daily consumption by everybody, women as well as men. The whole process becomes a *reductio ad absurdum.*

What physical training needs in both college and school life is a director who is enthusiastic and able in helping the individual, and who is willing to let trained scientists blaze the way for new discoveries.

In most school positions the time required for school duties is definite and the period when the good teacher is in contact with the pupils is comparatively short. In the case of the physical director the hours of work will be longer than those of the other teachers, and aside from class-exercises there must be such time devoted to the individuals as will enable the director to win their confidence and so direct their activities as to give them the needed start in methods of correct living.

The mere question of exercises is perhaps the least important one that the director must determine. For the average student I fancy that it matters little what the form of exercise is so that it is done in a hearty way and corresponds in some degree with the ordinary activities of life or has a large element of recreative interest. But the question of how the student conducts his daily life is of the very utmost importance. Many children do not know how to eat or even to sleep properly, while the care of the skin, of the teeth, of the eyes, etc., is really an unknown art. The relation of poise to the circulation, to digestion, and to the psychology of success itself, is never appreciated, and is one of the most difficult things to impress upon the minds of both young and old that the physical director ever attempts.

When we review the work of some of the former great teachers of gymnastics in the country (I have in mind now such eminent helpers of young men as R. J. Roberts of Boston) we will find that their conception of gymnastics may not coincide with the most scientific arrangement of work, and yet they have enthused their pupils with the importance of the full chest, the erect spine, the clear head, and the clean skin, and the result of their work has been a set of men who have compelled success and who challenge our admiration as living types.

I conceive that the purpose of the gymnasium and athletic field is to turn out healthier and more enduring people than could be produced without that; that so far as possible the gymnasium and field take the place of the farm and the out-door life that prevailed a hundred years ago. They produced a stalwart race that has developed a continent and compelled the admiration of the world.

The crowding-together of people in our cities has deprived the young of suitable means of physical exercise. The yards are small and absolutely inadequate for the purposes of play, and the streets are dangerous and filthy, and in no respect suitable places for rearing healthy children. Aside from their unsuitableness and danger, the law steps in and says the children shall not play in the streets and the burly policeman interferes whenever the boys or girls attempt to pass ball or play any of the games that produce noises that annoy neurotic neighbors.

The physical director must appreciate this psychological need of the child and introduce games as a considerable element in the physical activity of the child. He must also be versed in the psychological growth and appreciate what needs to be done to relieve the overburdened minds of the schoolroom. His department is the safety valve of the whole organization of university, as well as public school.

But how shall a man be trained in enthusiasm? For I fancy that nobody can get others to work in a hearty, earnest way unless he is enthusiastic himself. At basis, enthusiasm would seem to be a profound impression as to the importance of the work to be done and the absolute certainty of success attending earnest endeavor. It is absolutely impossible to awaken enthusiasm over an indifferent subject, and it is difficult to awaken enthusiasm if it is believed that the effect will go unrewarded in the attempt to secure the desired results.

It would seem that any school ought to provide the sinews of enthusiasm, but this is especially true of normal schools that are attempting to train teachers. It must needs be that the instructors in these normal schools must possess enthusiasm, for it is an infectious quality and passes from mind to mind. If the instructors appreciated the breadth of the field to be covered, the importance of the work as related to humanity at large, and especially to the specific individual, and if these teachers believed thoroly in the potency of the work in producing results, then it would seem that we would have teachers well prepared for the directorships for which they may be appointed.

It would appear that a too strict attention to technical details often limits the vision as to possibilities, and we expect absolute and accurate results where only approximations should be anticipated. The body is truly a physical entity that has mathematical limits, but its mathematical combinations are so intricate and modified by so many forces that cannot be foreseen and whose value cannot be determined for any given case, that the solution of any problem of the living thing becomes a matter of the higher calculus, and the ordinary mind ought not to be detained in its solution.

It would be wiser for the teacher of physical training to stick closely to those fundamental facts that have been determined by physiologists, and work for an enthusiastic adherence to them with a belief that the output will be satisfactory, rather than to endeavor to develop some new scheme of supporting life and enticing growth and development.

It is easy to invent a scheme of motion or to conceive of some intricate force or some subtle element in earth or air or space that by some novel application will restore health and symmetry to an exhausted mind or a jaded body. But such efforts do not lead to results that are permanently to the advantage of humanity.

Just now a certain individual has discovered a human electricity that can cure spinal curvatures, flat foot, and addled brains, but his discovery will do this only for a few years and then will be put up on the top shelf of the curiosity shop by the side of the natural systems of physical training, unsafe methods of breathing, curious freaks in diet, and the other curios that make humanity blush as they look over the museum of extravagant claims and deluded hopes.

ESSENTIAL ELEMENTS IN THE TRAINING OF TEACHERS OF GYMNASTICS

MISS MARION B. NEWTON, PHYSICAL DIRECTOR, PUBLIC SCHOOLS
ROCHESTER, N. Y.

A school for the preparation of the teachers of gymnastics should, I believe, make a wide study of the needs of the times and should endeavor in every way to meet these needs with the most progressive and efficient methods possible.

So far as I am familiar with facts at hand, the schools for training teachers of gymnastics have offered to their students general courses of instruction without regard to the kind of position the student was to fill. His or her ability or aptness for the work when it appeared was largely determined by the natural endowments of the student in question together with the previous preparation which he chanced to have had.

I believe we should all agree to the statement that first in the training of teachers of gymnastics there should be a *general* preparation. This may be more or less elaborate, but in order that the exponents of our profession may take their places among the deserving and respected educators of the day, this general preparation must be basal, and must be cultural, and be second to none.

A well-selected course of high-school subjects, after the work in the elementary grades had been completed, should be pursued, including, I believe, as much natural science as possible with plenty of laboratory experience; for instance: physics, chemistry, elementary biology, and botany; Latin and German for the purpose of giving a key to much scientific investigation which has already taken place; then for the more cultural subjects, history and literature; and not omitting music, the manual arts, gymnastics and hygiene.

The State Department of Education in New York has recently become very explicit in announcing what subjects and how much of them shall be required of a student who wishes to enter a state normal or training school for grade teachers and kindergartners. They are alive to the fact that certain subjects will better fit a young person to become a teacher than others, and entrance-requirements have been arranged accordingly.

I believe gymnastic training-schools could do much to improve the equipment of their students before entering by circulating literature intended to guide such students in the selection of high-school subjects with a view to the pursuing of an advanced course in professional training when the high-school work is completed.

If I may judge from literature which has come into my hands, the nearest approach to the training of teachers purely for "gymnastics" is to be found in England. Recently there has been organized in that country a sort of examining board, largely composed of physicians and some already successful instructors, in whose judgment candidates for positions in teaching gymnastics must qualify. Even in this country we are not long past the stage which allowed the supremacy of teachers whose sole qualification to the dignity of the term was a certain dexterity in performing feats of strength or skill.

With your permission I shall elaborate upon what seems to me to be a sane course of study for a modern training-school for teachers of gymnastics.

First, there is the gross anatomy, the study of which should acquaint the student with the material upon which and with which, later, he is to work. I believe this should be as thoro and as detailed as is the study of human anatomy required in a medical course.

Is it necessary to have a knowledge of the construction of the human body simply for the diagnosis and treatment of pathological conditions? Physical-training instructors may well be included in the company of doctors of "preventive medicine" or, if you will, doctors of health, the word "doctor" meaning "teacher," and in order best to fulfill their mission, they should know thoroly the physical nature of their subjects. A recent writer has raised the question of the effectiveness of the study of anatomy which does not permit the student to investigate for himself in the dissecting-room, but rather demands that he shall learn a myriad of facts at the hands of a lecturer or glean them from the pages of a book. He further holds that charts and manikins fall far short in the purpose they are supposed to fulfill; and that students' knowledge should be first hand.

Second, physiology and histology have their places next in the curriculum of the training-school, and, I believe, should go hand-in-hand with the work in anatomy. If it is true that "function makes structure" may we not be in the wrong in trying to place the former in a position unrelated to the latter? Would not the study and observation of the function of an organ together with its anatomical structure help to fix it all more securely in the mind of the student? Would not a young person be more likely to keep in mind the wonderful construction of a living mechanism if he could at the same time receive impressions of the method and purpose of its functioning? Nothing can be more difficult of retention in the memory than the tracing of a nerve. How much less difficult it would be could the student follow its course by his own investigation, and observe with his own eyes the effect upon it and the tissue it serves of an electric shock or other stimulus!

My plea is for more laboratory work, in other words, and methods in the training-schools themselves which will be more efficient in helping the student to retain the knowledge he is acquiring, and to put it into practice.

Third, should be found a course in applied anatomy, together with the physiology of exercise and experiments to show practical results. A person must believe in his work absolutely in order to make it successful, and positive proof, or as nearly positive as possible, strengthens his faith and consequently his worth.

As a concrete example of this principle, I offer an incident which occurred outside of a training-school of gymnastics in a ten-weeks' study in physiology pursued by a class of nine- and ten-year-old children. The study of bone- and muscle-tissue was the particular section of physiology occupying the attention of the class, and the results obtained are not given because of their scientific value but because they stood for a real interest on the part of the children, and to them were most convincing.

The class was divided into six groups, and with each group a strength-test or measurement was taken at the beginning and at the end of the ten weeks. Each group was instructed in a special exercise known to have considerable local effect, and during the interval between the two examinations the children practiced these exercises more or less regularly. The results, which were presented as curves upon a chart, seemed plainly to show that muscle-tissue *is* developed by exercise, followed by rest. The children were deeply interested and manifested a stronger inclination toward their regular gymnastic work.

Fourth, I should place a history of the development of life in the world, leading up to the race of man, then a brief study of the different ages thru which the human race has passed, the better to understand how the life of the child recapitulates the life of the race.

Fifth, emergencies, and a few necessary instructions in the care of the sick. Oftentimes the physical trainer is the nearest approach to a physician that can be found. And an ability to see what is needed when an accident has taken place and the skill to do the needful thing or see that it is done are essential requisites in the training of a teacher of gymnastics.

Sixth, anthropometry and physical examination, the study of the growth and development of the human being, are to my mind most important factors. The waves of increase or decrease in certain capacities, such as growth in height or weight or a change in the power of resistance to disease; the natural physical tendencies of certain periods of life, with their accompanying mental and moral considerations: all these the teacher of gymnastics should be taught to appreciate if he is to be a wise leader in the pursuit of his calling.

Then, too, the ability to listen to heart-sounds and wisely temper one's work, or advise further in regard to the condition, is important. A gymnastic teacher should also be able to make at least superficial tests of eyes and ears, and be not afraid to attack the realm of the teeth.

One of the most difficult lessons, and often one of the most galling that a physical trainer has to learn, is the realization of the fact that his classes, and especially individuals in them, have their limitations, and have distinct individual needs which cannot be met by gymnastics, impressive in appearance, yet harmful oftentimes in their effects upon certain members of the class.

As a seventh subject which deserves a place in the training of teachers of gymnastics, I would mention this: a history and theory of education, including a history of physical education as its facts arise in the concourse of events.

Psychology, as the eighth, should be recognized as a most necessary part of the equipment of every teacher. Intuitively he may be able to seize the "psychological moment" in strengthening his work, but a general should know the forces of his army in order to direct them intelligently. There is another side upon which psychology has a definite bearing. If we are to keep abreast of the times, we cannot fail to recognize the power of the *mental* in our work. Physicians, scientists, religious and social workers are constantly employing "suggestion" in the carrying-out of their worthy purposes, and are emphasizing the power of "good thought" in the world. For thought is a thing, and in-so-far as we can influence people for good by means of this vital thing, we should keep it constantly before us.

The good results of gymnastic training are indeed affected by the attitude of the individual student or of the class. The happier they are in their work, the better for them. Just here the personality of the teacher plays an important part, but I shall touch upon this point later.

With the course in psychology should be advanced one of child-study. I believe these two closely related phases of work are powerful factors in developing the individuality of students, helping them more clearly to know themselves, their possibilities, and their deficiencies, and stimulating them to strengthen the one and correct the other.

Ninth, instruction in personal hygiene and encouragement in the habits of right-living should be emphasized thruout the course. An instructor who is not a living example of the training for which he stands can never inspire the confidence in his patrons nor in his pupils, which is one of the strongest factors in the measure of his success. He must, in a word, "practice what he preaches" and he should be sure that what he preaches is the best.

A gymnastic instructor has wonderful opportunity to battle against the evil of high, or irrational living, and can work so effectively to acquaint people with the forces and conditions that best sustain life!

Tenth, voice and breathing. The so-called respiratory exercises, familiar to most of us, are given a place in our lesson-plans chiefly for their general effect upon the body in the way of re-establishing normal breathing after exertion, and the tendency they have to enlarge the thoracic cavity. Have we not been too indifferent in the matter of training and care of the human voice? Too often an instructor's voice is found to be harsh and displeasing, and with continued misuse and utter neglect of the delicate organ it bids fair to entirely give out or lose what qualities of purity and strength it once possessed. I believe this profession has much to learn from singers, and experts in breath-control along just this line. When gymnastic classes are told to accompany certain exercises with deep breathing how many of them receive any idea of the proper way in which to breathe, and in how many cases is voluntary control of the diaphragm—this muscle upon which the vocalizing power so largely depends—in how many cases, I say, is rational voluntary control of the diaphragm acquired? Most of us make vocal noises because we can not help it. But how much better it would be if we knew how to produce the greatest volume of sound or purest quality of tone and inflection with the least expenditure of energy! Not very long ago a teacher, of whom I knew, capable in almost every particular was asked to seek another position because of her unpleasant voice.

Instructors in gymnastics are forced to make great demands upon their voices, and they should understand fully the care necessary to preserve them. Besides, might it not be possible for us to do our part in eliminating the much-abhorred "American voice"?

Eleventh, in position, herein stated, but not in importance, I should mention corrective or remedial gymnastics and massage. The value of such work is too evident to require discussion.

I may now add the practical side of the teacher's preparation. This should be well determined, constant, and with a twofold purpose: first, the establishment and maintenance of the greatest degree of health in the individual student, and second, the development of his power as a teacher in the profession which he has elected.

He should be trained in the gymnasium by the most competent instructors, leaders conversant with the stable and worth-while systems of gymnastics. I believe no one will take issue with me when I say that the physiological sequence and definite, well-calculated progression of the Swedish idea can safely be used as a basis for the work. In addition to the practice of such gymnastics with and without apparatus, the student should become familiarized with the use of wands, dumb-bells, Indian clubs, and other hand-apparatus, as well as to have practice in dancing, both social and aesthetic, games, and plays—the value and study of which might be emphasized in the psychology or child-study courses—swimming, fencing, athletics, and in fact everything that possibly could add to the technical equipment, and skill of the instructor.

In other words he should be well grounded in the various means we have for attaining our definite ends, and he must be physically, mentally, and morally fit to affect in any way the lives of young people. After all is said and done the teacher is born and not made; his personality is the chief source of his success, altho the training-school can do much to increase his special efficiency, and aid in the development of his powers of organization.

In conclusion, I would summarize briefly the points I have tried to make clear without reviewing the subjects of the curriculum.

First, the desirability of selected high-school subjects in the preparation of a student, previous to his entrance into the normal school.

Second, better methods in the normal schools themselves, and a closer relation between their work and the work of education in general.

Third, the place of the "mental" in the physical-training profession.

Fourth, intelligent and practical training of the voice.

Fifth, the question of the advisability of greater specialization in the training of students, and

Sixth, the personality and character of the teacher.

A thought which I should like to leave with you for your sometime consideration is just this:

Are the physical-training interests in this country features of our national life? Are they regarded seriously, if at all, by the administrative powers of our land? And is it not important that the great body of peace-enjoying citizens of the United States should receive as careful bodily training and consideration as the comparatively few selected men who man our war-ships, and others who are trained in the arts of military service on land?

If there is *any* relation between the bodily condition and the mental and spiritual powers, it seems to me of national importance that the training of the people be not left to chance.

DISCUSSION

JOHN A. H. KEITH, president of State Normal School, Oshkosh, Wis.—I shall interpret gymnastics as meaning physical training and shall discuss the subject only as it applies to the teacher of physical training in the normal school; and, further, my discussion will relate to the power of the teacher to do effective work in this capacity rather than to the special training she should receive in preparation for it.

The first requisite of a teacher of physical training in a normal school is that she be sane. The sanity I have in mind is the kind that can come only with maturity, and maturity can come only with a wide acquaintance with life, reflection upon it, and a fine spirit toward it. These things in turn demand a longer and broader training than is usually offered and a broader general preparation preceding the beginning of specialization. I do not, therefore, agree with the writer of the paper in her contention that specialization for such work should begin by the selection of a special line of work in the high school. It is my judgment that a teacher of physical training in a normal school, dealing as she does with children and adults and student-teachers, has more opportunities to do foolish things than any other teacher in the faculty. These opportunities can be avoided only by that sanity and mature judgment to which I have already alluded.

A second requisite is definite knowledge of the characteristic stages of physical and mental growth in children and of the impulsive tendencies which accompany these stages of growth. The reason for this is that plays and games constitute the best forms and the worst forms of physical training—and that the plays and games that children select for themselves depend upon these successive waves of impulsive tendency It becomes very important, therefore, for the teacher of physical training to understand both these stages of growth and the plays and games, as well as the exercises, that fit into them in helpful ways. I am not so anxious about whether the child recapitulates the life of the race as I am that his impulsive tendencies shall be trained into efficient forms—efficient not only in the physical sense but also in the sense that he shall build up sane and wholesome standards of enjoyment. The requirement I am urging should be the possession of all teachers of physical training, and especially of the normal-school teacher whose influence is multiplied from one-hundred to five-hundred fold each year. It is my belief that the best way to popularize physical training is by a wise use of plays and games.

A third requisite is that the teacher be thoroly versed in corrective exercises. Modern life, including schools, tends to malform the human body; but here, as elsewhere, an ounce of prevention is worth a pound of cure. The fact is that much of the physical running-down of children comes with rapid physical growth, and it is possible to anticipate, by formative exercises,what would otherwise become defect. This requirement involves a number of the things mentioned in the paper. I wish to speak briefly of the group of studies known as hygiene, physiology, and anatomy. Genetically considered, interest in effective living led men to study the functioning of organs, and anatomy, dealing with structure, arose from an effort to explain functioning by structure. The logical relation of dependence lies in reverse order, however, and the present order of study—viz., anatomy, physiology, hygiene—has come about thru the adoration of the logical. It is my judgment that large health topics studied in the genetic order will yield more permanent and usable knowledge than the present order of study. This arrangement would not, however, demand as many microscopes as are used at present.

Another point made in the paper deserves emphasis. The teacher of physical training should possess enough of the physician's art to act as medical visitor for the normal-school students and to detect physical defects in both children and adults. And all this simply means a more adequate preparation for the teacher of physical training.

DEPARTMENT OF SCHOOL ADMINISTRATION

SECRETARY'S MINUTES

OFFICERS

President—WILLIAM O. THOMPSON, president, Ohio State University, Columbus, Ohio.
Vice-President—J. W. MCCLYMONDS, superintendent of schools, Oakland, Cal.
Secretary—WILLIAM GEORGE BRUCE, editor, *American School Board Journal*, Milwaukee, Wis.

FIRST SESSION.—THURSDAY MORNING, JULY 2, 1908

The first meeting was called to order at 9:30 o'clock in Cathedral Hall by President W. O. Thompson.

President Thompson delivered the president's address on "A Review of Certain Features of the Year in School Administration."

He was followed by Edmund A. Jones, state school commissioner of Ohio, on the "Centralization of Schools in Ohio."

Hon. August S. Lindemann, president of the school board at Milwaukee, Wis., then read a paper on "The Administration of Industrial Education, State and Municipal."

The discussions which followed were in the main upon the last paper, and were by Mrs. Pauline Steinem, member of the school board at Toledo, Ohio; David Snedden, Department Educational Administration, Columbia University, New York City; W. J. Deans, superintendent of schools, Elmira, N. Y.; J. C. Gibbons, Akron, Ohio.

President Thompson then appointed the following Committee on Nominations:

Harlan P. French, Albany, N. Y.
August S. Lindemann, Milwaukee, Wis.
F. H. Haserot, Cleveland, Ohio.

The department then adjourned.

SECOND SESSION.—THURSDAY EVENING, JULY 2

The second session was opened at 8 o'clock by President Thompson.

William B. Ittner, school architect of the school board of St. Louis, Mo., gave an illustrated address on "Modern School Architecture," using stereopticon views of the later and best school buildings of St. Louis.

Wilbur T. Mills, school architect of Columbus, Ohio, then read a paper on "Innovations in School Architecture."

The speakers were asked many questions by school-board members and superintendents present, indicating a keen interest in the subject.

The Committee on Nominations then reported the following list of officers for the ensuing year:

For *President*, Francis H. Haserot, president, Board of Education, Cleveland, Ohio.

For *First Vice-President*, Otto C. Schneider, president, Board of Education, Chicago, Ill.

For *Second Vice-President*, Danforth E. Ainsworth, president, Board of Education, Albany, N. Y.

For *Secretary*, William George Bruce, editor, *American School Board Journal*, Milwaukee, Wis.

For *Chairman Executive Committee*, W. O. Thompson, president, University of Ohio, Columbus, Ohio.

The report was signed by Harlan P. French and August S. Lindemann. The third member, Mr. Haserot, dissented from that part of the report proposing his name for the presidency. The report was unanimously adopted and the officers declared elected.

Adjournment followed.

William George Bruce, *Secretary*

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

A REVIEW OF CERTAIN FEATURES OF THE YEAR IN SCHOOL ADMINISTRATION

WILLIAM O. THOMPSON, PRESIDENT OF STATE UNIVERSITY OF OHIO
COLUMBUS, OHIO

A review of the year's progress in school administration suggests several lines of study.

First, The action of state legislatures in providing the legal basis for education.

Second, The action of the boards of education in the use of their discretionary power for development not necessarily required by statute.

Third, The action of universities, colleges, and normal schools in the development of their plans for the education of teachers.

Fourth, The decisions of courts defining the rights and duties of boards of education.

Fifth, Local movements made for the purpose of meeting local conditions.

I shall make no attempt to bring before you a complete survey of what has been attempted in these lines, but rather to call attention to a few of the more important features that either mark present progress, or suggest possibilities for the future.

Legislation.—The gratifying feature of legislation in general is that most states are disposed more and more to listen to the advice and counsel of the teachers. In almost every state in the Union where teachers are practically agreed upon legislation it has been, or can be, secured. This attitude indicates that there is a profound respect among the people for the judgment of intelligent teachers upon the subject-matter of education. It also reveals the fact that the people are realizing that education is fundamentally related to their commercial prosperity as well as to social and moral conditions, and that its greater efficiency must be secured in order to meet the new problems of a rapidly developing population. The democratic character of the public schools has been greatly emphasized both by legislation and the legal decisions upon the questions of the high-school fraternities. During the year the legislature of Ohio passed a somewhat stringent statute upon this subject, having in mind the legislation of other states and the decision of the courts in certain cases. This action will probably be substantially the attitude in a greater portion of the country upon this new and somewhat vexatious development in our high schools. The statutes in the main, and the attitudes of boards of education within these statutes, have been to discourage and, if possible, abolish all such organizations chiefly on the ground that they were unsocial and undemocratic, introducing classification among students that was altogether out of sympathy with the doctrine of the public school—namely, equality of right and privilege. The general agreement that such organizations have been hurtful to the interests of the high school constitutes a very strong plea against their development. Nor should the fact be overlooked that these organizations are one phase of a movement that would bring university and college methods into the public schools. Already considerable complaint is manifest among the people arising from the lack of supervision over study-periods by teachers and a manifest disposition for public-school teachers to assume the attitude of a university professor toward the student. It is doubtful whether that attitude can be justified by the university professor, and the people who maintain the public schools are beginning to assert their belief that a certain comradeship between teachers and pupils is necessary for the highest efficiency. In some cases where no legislation on this subject has been enacted, school boards have shown a disposition to exercise their rights under the general powers conferred by statute and limit the privileges of the members of such fraternities. The Ohio statute referred to prohibits membership in such organizations. If this statute becomes effective it will establish an important principle concerning the right of the people to control the character of the public schools. The Washington fraternity case determined the right of school boards to deny all recognition to members of secret organizations. The Minnesota and Chicago cases affirmed the same opinion. In this same general field the state of Wisconsin has decided pretty definitely upon the authority of the teacher over the pupil while outside of school. The important principle underlying these decisions seems to be that where the people support the schools and practically support minors, that their right is undisputed to determine the conduct and general attitude of such minors toward the fundamental question of education. In many places the public has assumed the responsibility of providing textbooks and even of other necessary things in order that the child may avail itself of the privileges of education. This is a new and somewhat extended interpretation of the doctrine hitherto included in the phrase *in loco parentis*.

Another interesting phase of legislation is the disposition to provide for school libraries and the extension of industrial education, especially with reference to manual training and domestic science. In some states the general authority is given for boards of education to provide for these things and in some instances a special tax levy is authorized for these purposes. The old conception of a library was that it was a collection of books. The new conception is that it is a collection of tools. This view of the library has made it a place where experienced and expert persons are able to supplement the teacher's work to the manifest advantage of the pupil. In the matter of industrial education, the meeting at Chicago in which the trade school was discussed was perhaps the most characteristic feature of the year's discussions in the matter of extending and widening the public-school facilities. This organization will be permanent and of necessity raise the general issue whether the public schools are to be developed into a great agency for preparing skilled workmen for our industries. No discussion of that issue is here appropriate, but the movement should enlist the interest and investigation of the friends of the public school, for the reason that it involves the large question of just what the public schools may rightfully be expected to do.

The year has also been characterized by an aroused public sentiment concerning school architecture. This program has provided for a discussion of certain phases of this question, but attention is now called to the fact that the movement for simplicity in buildings is due to the fact that people believe that the fundamental question in a schoolhouse is proper facilities for education. Under this general term they include safety against fire, the proper sanitation of the buildings, better provision for heating, ventilation, and light. The physical defects of many children are attributed to the improper lighting and heating of the buildings. Accordingly, increased attention has been directed to the character of the school building and a decided tendency to require architects to make a special study of the school building with a view to increased efficiency and comfort. These problems have naturally suggested the question of medical inspection, and already steps are being taken in several states to secure mandatory legislation upon the subject of medical inspection. The logic of this situation is simply that if the public provide the facilities for education and enact compulsory education laws, they should go to the conclusion of the matter and see to it, not only that the physical conditions surrounding the child are satisfactory, but that the physical condition of the child itself is such as to enable it to profit by the facilities afforded. As already intimated, this is an extension of the fundamental doctrine of public education, and puts society itself in the attitude of caring for individual needs, in order to secure greater social efficiency. The activities, however, are not confined to the pupils. The health, including the temperament of teachers, is being made a test of efficiency, and school boards are disposed more than ever to insist upon their right to know whether a teacher's health, temperament, disposition, and habits are such as to warrant her employment.

In the matter of school organization attention may be directed to the fact that there is a well-defined movement toward better organization and a tendency to be instructed by experience. The size of the school board itself has been much discussed. Pittsburg with 258 members, namely 3 members from 86 wards and a central committee of 43 members, is perhaps the extreme of large school boards. The larger cities have frequently had boards numbering from 20 to 30 or more. Cities like Cleveland operating under a smaller board have demonstrated the claims for better administration by such boards. In most places the board of education is a legislative body empowered to levy the tax for school purposes and is directly responsible to the people. The doctrine of ward representation has a tendency to identify the school organization with the political organization of the city and therefore bring it more or less under the influence, if not the domination, of political interests. The only valid claim for ward representation is that of local interest. Education, however, is not a local question, and any man fit to serve on such a board would have sympathies wide enough and keen enough to deal practically and helpfully with any portion of the city in which he resides. The elective character of such boards is important if they are to be legislative bodies having the right to levy taxes. In the very large cities, where small boards are desired and where there is a tendency to make them appointive rather than elective bodies, the problem of school revenues will become somewhat serious. If a school board is to be a petitioner at the doors of a city council for money, the probabilities are that political considerations will always have the ascendency over education. In recent years the state of Ohio, having elective school boards, repealed the statute which provided that city boards of review should finally fix the school levy. This marked great progress and gave the school boards the liberty necessary for efficiency. It is doubtful, however, whether appointive boards may justly claim the right to fix levies. The same legislature that repealed the statute referred to above provided that the terms of the members of boards of education should be four years. This is twice as long as the members of the city council and gave boards of education at once strength and dignity that enabled them to support the administration of superintendents that was a marked advance. The large cities have developed the necessity of something more than a superintendent of schools. The first movement was to provide supervisors and thus to separate the functions of superintending and supervising. The one dealt largely with questions of administration while the other dealt largely with the internal questions pertaining to efficient teaching. The further development calls for experts in the line of business management, including the questions of construction and care of buildings, the purchase and distribution of school supplies, and, in general, carrying into effect the executive and administrative legislation of the board. This logically assumes that the superintendent of public instruction shall be an expert educator rather than a business man whose time and energy are consumed with details that only indirectly have to do with the efficiency of the schools. The preparation of the business manager, director, or whatever his title may be will be one of the problems of the future. He ought to be a man with mature views upon public education, some technical training in engineering and architectural subjects, with some knowledge of the law of contracts, whose tenure of office would warrant the devotion of his life to these interests.

The action of institutions in the preparation of teachers.—Recent years have been marked by the attitude of the universities in the Central West toward the question of preparation of teachers. Many of these have had departments of education in which instruction was provided in the history of education, questions of school administration, and pedagogy. In some of these instances the department has been developed into a school of education in which certain groups of studies commonly known as professional were provided as an elective opportunity for students desiring to teach. Some of this work was well done individually but it has lacked the organization necessary to produce efficient teachers. The university has proceeded chiefly upon the theory that scholarship was practically the only equipment needed. Attention has been called publicly and repeatedly to the fact that the universities have given but little attention to the professional preparation for teachers for colleges and universities and still less to the preparation of teachers in the secondary schools. It has been frequently asserted that the best and the poorest teaching could be found in our universities. A large number of the young university men have made no study of the general field of education so that the science and art of teaching are practically unknown subjects to them. Many of these men know little, if anything, about secondary education. The argument for college-trained teachers in the secondary schools was supported by the theory that a teacher should have some knowledge of the world into which he proposed to send his pupils. It was stoutly argued that a teacher who knew nothing of the processes of college education was poorly prepared to fit a student to undertake a college education. After this argument had been generally admitted as valid it soon became manifest that a college professor who proposed to prepare teachers for the secondary schools ought to have a sympathetic and intelligent knowledge of what was going on in the secondary schools. The development therefore of this phase of education in the universities called for some organization of the university forces that should be both intelligent and effective. The school of education naturally developed the idea of a teachers' college. Some progress has been made in this direction but a large amount of education of the college professor is yet necessary before the teachers' college will rise to its opportunity and make the universities really effective in serving the public schools. The fact that many college-bred men have become efficient superintendents and teachers is not conclusive proof that the colleges or universities have done their full duty but rather suggests that some men have succeeded in spite of serious handicaps.

The most noteworthy feature to which I desire to call attention is the movement among the normal schools of the country for strengthening courses and for granting appropriate degrees upon the completion of these courses.

In 1904 the state of Michigan authorized the degree of Bachelor of Arts in education, and already five classes have graduated with that degree from the State Normal College at Ypsilanti.

In Colorado, the revision of courses as announced in the current catalogue provides for the degree of Bachelor of Pedagogy, for Master of Pedagogy, and for Bachelor of Arts in Education. The courses leading to these three degrees are so related to each other that students may pass readily from one degree to another. Of the thirty courses required for graduation for the first degree, eleven are required and nineteen elective. The required subjects are to be regarded as professional in character, including the subjects of psychology, education, teaching, and observation work. The further provision is made that two-thirds of the course for advanced degrees shall consist of advanced courses. The range of work offered covers the usual subjects in academic instruction together with manual training, domestic science, art, music, and library work.

In Wisconsin, the meeting of presidents of normal schools last April decided on a forward movement looking to the addition of a year at present for the purpose of a better training of high-school teachers. This movement passed in Wisconsin as elsewhere on the avowed theory that the normal schools at present with the usual two-years' course are not providing adequate preparation for the high-school teacher, and upon further belief that the universities do not give the sort of professional training that these people need. In view of these beliefs the movements in the normal schools are of special importance as related to secondary education. Examination has found that in Wisconsin approximately one-fourth of the high-school teachers and nearly one-half of the high-school principals are graduates of the normal schools only. Among the resolutions adopted at the meeting referred to, one looked toward the lengthening of the course to four years. No action seems to have been taken looking toward granting of a degree for the completion of this work but for a suitable diploma.

In Illinois, the legislature has granted the normal school power to grant degrees in education. The degree of Bachelor of Education will be granted to graduates of state normal schools who complete two years of graduate or subsequent work, and also to graduates of standard colleges and universities who complete one year of professional graduate work. It is further provided that three-eighths of the required work may be done by normal-school graduates *in absentia*, provided their studies are directed by the normal school and final examinations taken. One of the two years required for the graduates of the normal school may be done at any standard college.

In Kansas, the State Normal School at Emporia has been reorganizing its course and developing a normal-collegiate course leading to the degree of Bachelor of Arts in Education. This course is built upon a four-year high-school course. It includes the usual professional subjects in school administration, history of education, psychology, and observation and practice work. Reports indicate that a considerable number of Kansas teachers will take advantage of this provision and further equip themselves for professional teaching.

In Indiana, the State Normal School at Terre Haute has made similar announcement, looking toward the granting of the degree of Bachelor of Arts.

Reports from New Jersey show a movement to lengthen the course of the normal school but action has not yet been taken looking toward conferring a degree.

These statements are sufficient to demonstrate that, the country over, there is a growing disposition to enlarge the work of the normal school and to crown it with an academic degree. A little examination of the course offered will reveal the fact that these schools do not insist upon the amount of strictly academic work usually required in an approved college. The elective principle has fewer restrictions in the normal school and accordingly the degree has given a wider application than in the most liberal of American colleges and universities. There can be no doubt that educators will welcome the improvement of the facilities at the normal schools. On the other hand, the universities and colleges must face the fact that the increased facilities at the normal schools will have a decided tendency to withdraw prospective teachers from the colleges unless the colleges themselves shall make provision for the education of teachers equally as good as those offered in the normal schools. The apparent conflict of interest between the college of liberal arts and the teachers' college is a mere incident in the movement. There is no immediate prospect that the teachers' college can be made a distinctly graduate school for the normal schools or for the graduates of colleges. It may be suggested therefore that in view of the variety of conditions surrounding these different types of schools some action should be taken that will correlate more closely the work of the normal school, the college of liberal arts, and the teachers' college. The movement at present is significant for the further reason that it is added to the existing confusion concerning the significance of college degrees. I dare say that no well-educated man in the country has any clear conception of what any modern college degree stands for except the mere matter of time residence at an institution of learning. This condition indicates that the administration of higher or professional education is not under any very systematic supervision.

THE CENTRALIZATION OF RURAL SCHOOLS IN OHIO

E. A. JONES, STATE COMMISSIONER OF COMMON SCHOOLS, COLUMBUS, OHIO

The origin of centralized schools in Ohio may be briefly stated. In the early history of our state the population was mostly rural, and farming was the principal occupation. Gradually cities sprang up and as one form of machinery after another came into use, manufacturing plants were established. There was a great demand for labor in this line, and many left the farm for the shop and the factory, and there has been a general movement of the population from the country to the city. Many farmers have moved to the city in order that their children may enjoy better educational advantages. Many retired farmers now live in villages and rent their farms. At least 28 per cent. of the farms in Ohio are now in the hands of renters. This fact has an important bearing upon the school question.

Dr. Strong, in his late book, *The Challenge of the City*, states that at the beginning of the nineteenth century the United States had only 6 cities of 8,000 inhabitants or more; in 1880, 286; in 1890, 443; in 1900, 545, among which are some of the great cities of the world. In 1800 less than 4 per cent. of our population was urban; in 1900, 33 per cent. In fifteen states the majority of the population now live in cities and in eight states the urban population is more than two-thirds of the whole. The application of machinery to agriculture has driven many from the farm. A special agent of the government reports that four men with improved agricultural implements do the work formerly done by fourteen.

Dr. Strong makes this further statement: "To produce our agricultural staples in 1870, one man was employed to every seventeen acres cultivated; in 1890 there was only one to twenty-six acres. If the same methods had been employed in 1890 as in 1870 there would have been required 4,430,000 more farm laborers than actually found employment on the farm." Dr. Strong argues the continued disproportionate growth of the city by reason of the fact that there is a natural limit to the world's capacity to consume food while there is no such limit to its capacity to use the products of the mechanical arts.

When the world has been adequately supplied with farm products there can be no increase of food, or of those producing it, except as population increases, which is slowly. On the other hand the products of manufactures and of fine arts increase as rapidly as the increase of population multiplied by the increase of wealth and of human wants, both of which are growing with astonishing rapidity. In Ohio the township was the civil unit. These townships varied in size—some were five miles square, some were six miles square and others were irregular in shape, eight or more miles long and of varying width. For school purposes these townships were divided into subdistricts with a schoolhouse in each—as many in number as would provide for all the children of school age. The change in the rural population reduced the number of children of school age in many of these subdistricts to a very few. An examination of the enumerations in fifteen of the best farm counties of the state, made by Professor A. B. Graham of the Agricultural Department of the Ohio State University, shows an average to the county of nearly nine subdistricts each of whose enumeration is fifteen children or less. The attendance in such districts is rarely more than ten pupils; counting the same average per county there are about eight hundred such subdistricts in the state, where the average daily attendance of pupils would vary from ten to five pupils or less.

It occasionally happened that extensive repairs were needed on a schoolhouse, or it would be necessary to erect a new building. The question would then come before the board of education as to whether it would be wise to invest so much money for a very few pupils, or whether they could make provision for their education in some other way that would be more satisfactory and less expensive. This question came to the board of education in Kingsville, Ashtabula County, in 1892. As the schools in this township were very small and the per capita expense of conducting them in the old way was unduly large, the board of education finally agreed to try the experiment of transporting the children of the township to the village school. In order to make the centralization legal and to provide for the cost of transportation, a special bill was introduced into the general assembly and it became a law April 17, 1894. The law was applicable only to the one township, and contained a provision that the appropriation for any subdistrict should not exceed the amount necessary in the judgment of the board for the maintenance of the teacher in such subdistrict for the same period of time.

The next general assembly extended the same privilege to boards of education in both township and special districts, in Stark, Ashtabula, and Portage counties. The results were so satisfactory that on April 5, 1898, a general centralization law was passed requiring township boards of education to have a map prepared designating the numbers and boundaries of the subdistricts and authorizing the board to increase or diminish the number of subdistricts, or change the boundaries thereof, or to suspend the school in any subdistrict and transport the pupils, when in the judgment of the board it may seem best. The present statute, as amended April 24, 1908, authorizes the board of education in any township district to suspend the schools in any or all subdistricts in the township district, but upon such suspension the board must provide for the conveyance of the pupils to a public school in said township district, or to a public school in another district, the cost of such conveyance to be paid out of the funds of the township school district; or the board may abolish all the subdistricts, provided conveyance is furnished to one or more central schools, the expense of such conveyance to be paid out of the funds of the district, but no subdistrict school where the average attendance is twelve or more shall be so suspended or abolished under the provisions of this section, after a vote has been taken under the provisions of Section 3927, 2, of the Revised Statutes, when at said election a majority of the votes cast thereon were against the proposition of centralization, or where a petition has been filed thereunder and has not yet been voted upon at an election.

No township schools shall be centralized under this section by the board of education of the township until after sixty days' notice has been given by the board, said notices to be posted in a conspicuous place in each subdistrict of the township.

When transportation of pupils is provided for, the conveyance must pass within at least the distance of one-half of a mile from the respective residences of all pupils, except where such residences are more than one-half mile from the public road; but transportation for pupils living less than one and one-half miles, by the most direct public highway, from the schoolhouse, shall be optional with the board of education.

Under another section, the township board of education may submit the question of centralization to the qualified electors of the district, and upon the petition of one-fourth of the qualified electors the question must be submitted to a vote. If the majority vote in favor, the board must proceed at once to centralize the schools, and they may purchase a site and erect suitable buildings if necessary. If it fails to carry, the question cannot be submitted again for two years. When the schools have been centralized, such centralization cannot be discontinued within three years and then only by petition and election. If discontinued by vote, the old subdistrict lines are re-established.

PROGRESS IN CENTRALIZATION

Progress in centralization in Ohio has been slow but steady and especially satisfactory in the past two years. The general law in reference to centralization was passed in 1898, as has already been stated. In 1900, seventeen townships were reported as centralized. The next year the number was increased to 46, and the following year to 70 townships in 29 counties. In 1905, eighty-two townships reported centralized schools. In 1906, one hundred and twenty, and in 1907 there were 157 townships whose schools were wholly or partially centralized. When all the reports for the past year are in, I have reason to believe that this number will be still further increased.

TYPES OF CENTRALIZED SCHOOLS

1. Schools are completely centralized by vote of the township, such as Gustavus, Johnson, Kinsman, and a half-dozen others in Trumbull County; Pierpont, Colebrook, Wayne, and Ashtabula Townships in Ashtabula County; Mantua, Huron and Aurora Townships in Portage County; Auburn, Geauga County; Pike Township, Madison County; Wayne Township, Clinton County; Copley Township, Summit County, and a few others.

2. Schools from half to completely centralized by vote of the board of education to suspend schools in subdistricts, such as Kingsville Township, Ashtabula County; Streetsboro and Nelson Townships, Portage County; Bainbridge, Troy, and Parkman Townships, Geauga County; Madison Township, Lake County; Mad River Township, Champaign County; Fulton Township, Fulton County, and some others.

3. Special districts in which schools have been suspended and children transported to a central school, such as Selma Special, Clark County; Hartgrove, Footville, and Windsor Specials, Ashtabula County.

4. The fourth type may be more properly styled consolidated schools; one or two schools transported to another sub-district or village school. Examples may be found in Ashtabula, Ashland, Champaign, Clinton, Franklin, Fayette, Fairfield, Mahoning, Medina, Lorain, Huron, Highland, Ross, Licking, and a few other counties.

The 157 schools now wholly or partially centralized may be classified as follows: completely centralized, 38; about one-half of schools suspended, 32; one or two schools transported to another district or to a nearby village school, 97.

TRANSPORTATION

When centralization has been decided upon it becomes the duty of the board of education to provide a suitable building. Provision is made in the statute for the issuance of bonds. The amount needed will depend very much upon the number of rooms required and the number of pupils to be accommodated. The cost ranges from $4,000 or $5,000 to $17,500. The fine building, grounds, and equipment at Lees Creek, Wayne Township, Clinton County, cost $17,500. The site includes three acres, and a fine row of sheds has been erected for the protection of the vans used in the transportation of the children. A long room in the basement is provided with tables for the convenience of the large number of pupils who must necessarily bring their dinners. The arrangement of routes is an important matter for the board of education to determine. A sufficient number of wagons or vans should be provided, so that no child will be obliged to spend too long a time upon the road. Every effort is made to have the children at the farthest points reach the central school in one hour or in one hour and a quarter when the roads are in fair condition. Routes are let to the lowest responsible bidders. Great care is exercised in the selection of drivers to secure men of good habits and who are in every way trustworthy. A carefully worded contract is drawn up, which the driver must sign. He must also give a good and sufficient bond for its faithful execution. There is usually no difficulty in securing a sufficient number of responsible bidders, especially after the first year. The wagons cost from $80.00 to $175.00. The cost of the wagons used in northeastern Ohio seldom exceeds $100. The wagons used at Lees Creek and Selma cost $175.00. They are built expressly for this service. They are hung low, are open in summer and closed in stormy and in cold weather. They are provided with comfortably cushioned seats along each side and are furnished with a plentiful supply of warm robes in winter and heated in extremely cold weather. They are well ventilated and not easily overturned. In the northeastern part of the state where centralization first started, the wagons are usually owned by the drivers. In many of the completely centralized townships the wagons are the property of the board of education. Professor A. B. Graham, to whom reference has already been made, states as the result of his investigation that drivers are paid from seventy cents to $2.50 a day, according to the number of miles, the number of children transported, the condition of the roads, competition in bidding, etc. The distances vary from two and one-half to eight miles, and the number per conveyance from six to twenty-seven. The average cost per day for conveyance is $1.50; average distance four and one-half miles; average number per conveyance 20.

OBJECTIONS FREQUENTLY RAISED

The following are some of the objections we are most frequently called upon to meet:

1. The cost under centralization will be greater. On account of the greater efficiency of the system and the larger results secured, it is difficult to make a just comparison as to the matter of cost. While the absolute cost of a completely centralized system of schools may be somewhat greater, it must be

remembered that it includes something of supervision and instruction in special branches not provided for in the subdistrict plan. Furthermore, experience proves that many more pupils are brought into the schools where transportation is provided, and the average daily attendance is increased to such an extent that the cost per pupil based on the average attendance is really not so great as it was before.

2. The fear has often been expressed that where the different schools were brought together and pupils from different homes were conveyed in the same wagon there would be great danger of spreading contagious diseases thru the township and the health and morals of the children would be imperiled. This is a matter of great importance, and one concerning which school authorities must exercise great care. I am sure I can truthfully say that the experience of Ohio for the past twelve or fifteen years has shown that there is no valid ground for this objection. The health and the morals of the children have been more safely guarded under the new plan than the old.

3. The bad condition of the roads at certain seasons of the year is often urged as a strong argument against centralization and the transportation of pupils. It is no doubt true that in some of our townships the direction of the roads and their condition at times are such as to render centralization practically impossible. I may say, however, that in the northeastern part of our state, where this plan has proved very successful, the roads are as bad as roads can well be, and an additional team of horses is sometimes necessary to pull the wagons thru. I am hoping that, thru the rural delivery, the milk routes, the hauling of farm products to market, and the transportation of school children, together with the statute recently enacted in reference to highways, we shall soon see a marked improvement in this direction and that the time is not very far distant when we shall have good roads thruout the length and breadth of our state.

4. It is sometimes urged that the present school buildings in a district are too good to be abandoned. There may be some force in this objection, and there may be cases where for this reason the question of centralization may have to wait for a few years. In some of our best townships, comparatively good buildings have been abandoned and sold and the proceeds used to help defray the expense of a new modern building for a centralized school, because the board of education and the citizens felt that the much better results to be obtained would more than justify any sacrifice that might thus be made.

5. There is a sentiment on the part of some in reference to the little red schoolhouse that stands by the cross roads, an objection to any innovation, however worthy it may be, and a feeling that what was good enough for the fathers is good enough for the children. With reference to this objection, I will simply say in the words of Mr. Edson of Massachusetts: "It has great influence only with those people who choose to live, move and die as did their ancestors, on the theory that this is the last generation and that any special efforts at improvement are just so much more than is wise or necessary."

ADVANTAGES OF CENTRALIZATION

The following are some of the advantages of centralization, briefly stated:

It brings into the school pupils who would not otherwise enjoy its advantages.

It insures a much better average daily attendance of pupils and greatly reduces the number of cases of tardiness and truancy.

It gives an opportunity for a better classification of the schools and proper grading of pupils.

It encourages supervision and gives the superintendent a much more favorable chance for thoro inspection of the work of the lower grades.

It limits the field of work for each teacher and gives an opportunity for a more thoro preparation.

It gives fewer classes to each teacher and allows longer recitation periods.

It gives the boys and girls of the rural schools the benefit of such special branches as music, drawing, and agriculture under a special teacher employed by the board of education.

It encourages the formation of good township high schools and gives to the boys and girls in the township districts equal advantages with the children in the city districts.

It tends to prevent difficulties which often arise on the way to and from school and to protect the health and morals of the children.

School affairs can be administered more economically. Better equipment in the way of apparatus and library for the different grades can be provided for less money.

The children have the benefit of better school buildings and of modern conveniences in the way of ventilation and sanitary arrangements.

Better janitor service can be secured.

It helps to solve a difficult problem for boards of education, where the enumeration in several subdistricts is exceedingly small and new buildings are needed.

It secures the employment, retention, and personal influence of better teachers.

It adds the stimulating influences of larger classes with resulting enthusiasm and generous rivalry.

It affords the broader companionship and culture that comes from association.

And finally, it serves to bring the citizens of the township into closer relationship and to awaken a deeper interest in the public schools.

ADMINISTRATION OF INDUSTRIAL EDUCATION, STATE AND MUNICIPAL

AUGUST S. LINDEMANN, PRESIDENT, MILWAUKEE BOARD OF SCHOOL DIRECTORS, MILWAUKEE, WIS.

The public-school system in the United States has now been in operation for a sufficiently long period of time to have acquired definite form as to scope and purpose. The curriculum has undergone changes by inclusion and exclusion of studies, has been modified by correlation of the several subjects taught and developed by improvement of classroom methods. Special lines of study have come and gone and some that were once antagonized and decried as fads have been permanently adopted in the courses of study.

The accepted scope of the American school system has, however, in the main, excluded all special preparation of its pupils for vocational careers. Occasionally high schools offer commercial courses to equip boys and girls for certain classes of positions in commercial life, but usually this training is given in "business colleges." Special training for pupils for industrial activities has been excluded from the classroom.

Therefore the educational equipment of the American youth may be said to be general rather than specific, or in other words the school does not offer any special preparation in addition to the general educational training given. Manual training may in part equip the boy with some experience for an industrial career but this, we understand, is not the real purpose of that study. It simply aims to give elementary training of the hand and mind of the pupil as a part of his common-school education. By the careful co-ordination of this work with the formal studies we believe that the child receives a more efficient education.

Thus educators and school boards do not give the boy any preparation for a specific trade. The scope of the American school system has thus far gone little beyond the requirements of general elementary education and rudimentary preparation for the duties of citizenship.

Conditions in industrial life.—Evolution in our industrial life demands adjustment in the training of the youth. We have entered into an age of great industrial expansion but are unfortunately confronted with restricted facilities for industrial training. Shall the responsibility for changing this condition fall merely upon private institutions or be assumed by the public-school system, or possibly by division be taken up by both agencies? This problem the educators and school boards of this country will sooner or later be called upon to solve.

Leading educators and progressive manufacturers have for years agitated for industrial education. We are falling behind in the world's commerce in the amount of exports of articles which are classed as competitive. Government reports show that our formerly great efficiency in the trades is diminishing.

Industrial education has thus far been fostered in special institutions conducted under private auspices. Where such education has been pursued in institutions of a public character it has concerned itself with the higher branches in the mechanic arts and has supplied the industrial army with officers rather than with men who serve in the ranks. The industrial field has hitherto drawn its recruits thru the medium of the apprentice system, and its experts and leaders from the educational institutions.

This method of reinforcing the industries will doubtless continue, but the experience of recent years has demonstrated that our economic conditions have changed and that with it we must supplement and change some of our methods of preparation. The old-time apprentice system which prevailed during the period of the individual mechanic who produced the complete article of manufacture has lost its efficacy. With the era of machines and systematized methods of production the apprentice system of old has been eliminated. The boy of today no longer has the same opportunity of learning a trade that his father had.

Manufacturers lead.—This fact has been recognized by the manufacturer of the country as well as by the educator. The latter has discussed the value of industrial training and pointed out in general terms its necessity, but it remained for the manufacturer to strive toward attaining concrete results. Trade schools have sprung up thruout the country in connection with manufacturing plants rather than with the schools. In fact, trade schools as a part of the public-school system are still unknown. With one or two exceptions there are no common-school systems in the United States that have any trade schools connected with them.

Much appreciation is due to schools built by private foundation. They have so far done the work of pioneers and will, no doubt, in the future, solve many special problems of industrial education—problems which are outside the sphere of schools under public auspices. Indeed, much of the enthusiasm in the movement is due to those industrial educators and technical teachers who have blazed the way by showing the possibilities and advantages which such training offers to our people. That the various systems of public education will take up the work is now quite certain and the reasons for public adoption can, we believe, be strongly supported with fundamental arguments.

The careful student of this question would not limit such instruction to the industries, but will include the broader entry into vocational preparation for those pupils who are not privileged to go beyond the grammar school.

The pedagogical value of industrial and vocational study is too frequently misunderstood and gravely underrated. Only a superficial inspection of some of the work already accomplished will prove this point. The vocational school, co-ordinated with the common school, falls completely within Froebel's great educational idea, "Education thru Self-activity."

Public interest has been aroused to the serious necessity for scientific training in the trades and can be depended upon to bring about widespread introduction of industrial education. Planning for general inauguration of trade schools and the supervision of the instruction are problems of far-reaching importance. This paper relates more especially to such instruction under the authority of the state. Therefore the question of administration by state or municipality is second only to the movement itself.

This brings up the main question. Are trade schools to come within the province of a system of popular education? If the state can consistently, thru its colleges and universities, teach the higher branches of the mechanic arts, then it naturally follows that it can consistently teach the lower branches in the public schools. If the state can teach the elements of agriculture in the rural schools, it can teach the mechanic trades in the city schools. Again, since the state is intrusted with the mission to prepare the youth for useful citizenship, it is only a question of expediency how far that preparation shall go. If the high school prepares students to fill positions as bookkeepers and stenographers, the public trade school is equally warranted in preparing its boys for mechanics and artisans.

The widening of the scope of popular education will carry with it many difficult adjustments of method and will require granting ample appropriations of funds and greater statutory powers to school officers and officials. Yet the proposition of adopting industrial training in the public-school system and the adaptation to the needs of the community does not carry with it the experimental difficulties and uncertainties, because in many of its phases we may follow well-established experiences. Training for the trades by the guilds during the Middle Ages and in later times was indeed a very successful institution. In our day, with our greater modern facilities and scientific training we can give better direction and bring greater power to bear, which cannot but achieve more important practical and social results. In those olden days apprenticeship and the learning of trades came strictly within the sphere of economic and social life. Thru the wonderful growth of school influence in present-day civilization, the question of preparing for vocations, trades, and industrial pursuits is shifting in position and occupies a middle ground between the school and the social economic field. We are dealing here with an economic necessity on the one hand and a functional school question on the other. If the industrial field is no longer able to do justice to the boy who desires to enter its ranks, the commonwealth may, thru its educational system, assume part of that burden. It logically follows that the duty of turning the boy into a self-sustaining citizen in the absence of other suitable means, falls upon the state. This conclusion has been reached by at least two states in the Union; namely, Massachusetts and Wisconsin.

Let us realize that over 90 per cent. of the youth of today are not educated farther than the grammar school. Again, the Massachusetts Committee on Industrial Education finds that some 25,000 children between the ages of fourteen and sixteen years have left school and are drifting from one trade to another, vainly seeking to gain a foothold. Facts like these, and they are only symptomatic of the real issue, point to the great need of the movement. What other influence, except that of the state thru its school system, can cope with the situation? Industrial education, to reach the masses, must mean instruction thru the aid and under control of the state. A branch of the state department of public instruction, such as now exists in New York or Wisconsin, should be the controlling and directive force to carry out a systematic plan and work in co-operation with local educational bodies. Miscellaneous, isolated beginnings lack uniformity and will fail in general results. The haphazard experiments in the introduction of manual training may be repeated, interest may lag, and the results from such introduction bring disappointment and tend to cripple the good cause. All these considerations are fundamental in framing suitable legislative enactments for any comprehensive system of instruction.

Massachusetts and Wisconsin.—Massachusetts has created a state commission, the purpose of which is to make propaganda for the cause of industrial education, to advise with school boards wherever the establishment of trade schools is in contemplation, to supervise the equipment, buildings, the employment of teachers, and the adoption of courses of study. The law has been in effect for two years, but thus far no tangible results in the way of establishing trade schools have been achieved. The New York state trade-school law provides for the establishment of general industrial and trade schools. It further provides for state aid, supervision by the Commissioner of Education, and management by local school authorities working together with an Advisory Committee consisting of men selected from the industries. It appears to be a very excellent measure for the promotion of industrial education.

The Wisconsin law authorizes cities and school districts to establish trade schools and to levy taxes for their maintenance. Thus the city of Milwaukee, the metropolis of the state, is empowered to raise the sum of about $100,000 annually for its school of trades. Under this law the school board was enabled to take over a fully equipped institution, formerly conducted under private auspices, and make it a part of the public-school system.

The direct management of such schools is placed in the hands of an advisory committee of five citizens, outside of the school-board membership, and each committeeman must be familiar with one or more of the trades which are taught. This insures a competent directory consisting of industrial operators who possess practical experience, and expert workmen actually at work in the trades. The school board, acting as trustees of the school system, have the final decision in the determination of all questions. The superintendent of schools, as the highest educational expert, is given directive initiative in the trade school. Here we have an ideal plan under which the responsibility for the success of the trade school is shared alike by the industrial interests and workingmen in the trades on one hand and the educational experts and the school board on the other.

Trade schools in other countries.—The nations of western Europe thoroly appreciate the necessity for training in the trades and have built up more or less complete systems of industrial education. Great Britain, thru its various educational commissions, is seeking to amplify the scope and plan of such instruction. She recognizes that this will be the only and certain means of regaining some of her waning commercial prestige. In the various parts of the United Kingdom monthly welfare meetings are held by operators, to give life and force to the movement. The commercial supremacy of Germany can be directly traced to its diversified system of trade and industrial schools and technical and commercial colleges. Altho a poor country in natural resources she has, by thoroly educating her industrial army in mechanic arts and sciences, in a short period won a leading position in the world's commerce.

The best preparation for the youth must strive to place him at the work for which he is most apt and at which he is likely to do well. Imperial Germany and republican Switzerland have both, by virtue of their industrial educational system and thru their teachers, succeeded in sorting out boys and girls for the vocations to which they seem best fitted. Democracy, it is said, should offer every individual an opportunity to put forth his best efforts. Then indeed should the several states of our great republic inaugurate this modern progressive educational and training movement.

Can we, as school officials, do a greater service for the upbuilding of the masses? The answer is emphatically, No! If we fail to assume some of the responsibilities of this great educational necessity we will be simply shirking our duty.

Will the state act?—Commonwealths, thru the public-school system, will sooner or later, we believe, assume the task. Opposition may develop to such a course, since prejudices always exist to what is called overburdening of the schools. Every successful executive officer knows that these objections will not hold if proper care is taken in the development of the administrative features of such a plan. Additional functions and responsibilities, it is true, have at times been added to the common school, and oftentimes under impractical and improper conditions, bringing forth unsatisfactory results and giving rise to just criticism. No one conversant with our school life will maintain that we are not able and competent to develop and amplify our school management and schoolwork as thoroly and efficiently as other progressive nations are doing.

The success of such a policy, broadly speaking, will depend on two vital issues:

First, on wise and comprehensive legislation which must grant liberal funds and shall establish control and supervision both by the state thru its educational department, and by the local authorities thru its school boards and officials.

Second, on the ability of the educators and technical teachers to adjust schools and shop methods for the development of practical plans for industrial training.

SCHOOL ARCHITECTURE

WILLIAM B. ITTNER, COMMISSIONER OF SCHOOL BUILDINGS, ST. LOUIS, MO.

There is nothing perhaps in the history of education which has brought proper school building more prominently before our people than the disaster which occurred near this city on March 4, when 173 school children and two teachers lost their lives. Why is it that so many hard lessons must be learned by bitter experience? It required the Iroquois fire to reform theater construction and management, and a General Slocum disaster to call attention to the unsafe condition of our excursion steamers. Neither of these experiences pointed directly to school buildings, and it remained for Cleveland to furnish the lesson.

If the disaster at Collinwood shall result in better plan and safer construction in the future schools of our country, it will have indeed erected a fitting memorial. While this undoubtedly will be the final result, it must also have already resulted in much hurried, ill-advised, and useless expenditures of money in so-called measures of safety. "In 1899" (only eight years ago), said the late Edward Atkinson, "485 college buildings and schoolhouses were burned, or 10.46 per week; and the rate of destruction is increasing. I have examined several college buildings, memorial halls, and the like, and have never found a class in which heavy damage or complete destruction had been more adequately provided for by the masters of combustible architecture."

A recent insurance report gives a record of fifty-eight fires in educational institutions for a period of three months from January 1 to March 30 of this year.

A number of our buildings, notably our mills and factories, are the safest class of buildings in the country, not only for the property within, but for the men and women employed. Can it be possible that we shall fail in the safeguarding of the children in our public schools? In my own personal experience I have never seen more shoddy construction and slip-shod work than in some of the school buildings I have examined. It is my purpose, therefore, to lay before you, as briefly as may be, the essentials for sane and safe school-house construction.

The planning and construction of school buildings is so well understood that mistakes leading to serious loss are almost unpardonable. Many school authorities deliberately calculate upon architectural effects, and make expenditures for applied ornament at the sacrifice of fire-resisting construction. Others are ignorant or careless to a degree that invites destruction. Again, too much dependence is placed upon the isolation of the building without proper regard to the fire hazards contained within the walls.

In the erection of our buildings the best architectural experience available should be employed. Careful consideration should begin with the selection of the site. It is needless to say that it should be in a well-drained, dry location off a main thorofare, unless it is of such generous proportions as will permit the setting of the building well away from the noises of the street. It should also be well removed from objectionable buildings, such as stables, factories, and the like. The area of the site should be generous. A minimum of unbuilt-upon area of thirty square feet per pupil should be provided, if possible. This will afford space for playgrounds, as well as a limited area for planting. All of these requirements are readily obtainable for suburban schools. Where the site is to be located in the more densely populated portion of the city, some sacrifice must necessarily be made in the interest of economy. The site should, however, never be restricted to the extent of endangering the light, or the building by fire risk from adjoining structures. Regard for other conditions often interferes with the orientation of a building. Some authorities prefer a northern exposure for the classrooms. Where the site permits, an easterly or southerly exposure is most desirable. This permits the penetration of sunlight to the maximum number of rooms during the morning hours.

Where possible, the building should not be more than two stories high above the basement, which should be well out of the ground. In congested districts where it is necessary to increase the height, the building should be of fireproof construction thruout. A two-story building, aside from the comfort derived, gives a feeling of security which more than compensates for its additional cost.

Every building should have at least two exits directly from the first floor. They should be located as remote from each other as possible, and should be reached directly from corridors and stairways. Additional exits should be provided from the basement for each sex. A desirable feature is to provide playrooms in the basement in which early arrivals may find shelter. These rooms should give access to the toilets, but should be cut off from the building proper with doorways.

The boiler and fuel room and the heating apparatus should be absolutely cut off, by masonry walls and fireproof ceiling, from the remainder of the building; and should have an independent entrance leading directly to the outside of the building. It is best that doorways between the basement rooms be entirely omitted. Should doorways become necessary they should be of the automatic closing standard fire-door type. Some authorities recommend the placing of the boiler and heating apparatus outside of the building in an independent structure. The expense of such construction is unnecessary if the rooms are isolated as above described.

The doors of all exits should swing out in the direct line of travel. The temptation to bolt and lock exit doors during school hours, to prevent objectionable intrusion, is too great to run any risk by providing locks. A plan recently devised eliminates all hardware except push plates on the inner face, and pulls on the outer face of the doors. To secure the building after school hours, the outer openings are provided with folding gates. These are swung back and locked in position during school hours, and the exits cannot be obstructed.

The stairways should never be less than two in number, and should the building be a large one, one or more additional stairways should be provided. They should be widely separated, never more than five feet wide, with easy rise and tread and wide landings. Circular stairways and winders should be avoided, and there should never be more than fifteen risers between landings. Stairways should always be of fireproof construction, masonry or metal thruout, and should have a strong balustrade of simple design. If of metal, the wearing surface of the treads should be recessed and covered with asphalt or other non-slipping covering. Strong hand rails should be provided on wall and balustrade in continuous ramp from bottom to top.

If the building is of non-fireproof construction, stairways should be inclosed in a fireproof inclosure. Corridors, if possible, should be given outside light. They should be of ample dimensions and enable the massing of all the pupils on each floor without overcrowding. Ten feet is the minimum width, fourteen and sixteen feet being preferable.

Non-fireproof buildings are rendered practically safe if corridor floors and stairways are of fireproof construction. Classrooms should be about thirty-two feet in length, and the minimum width to accommodate the number of pupils required. If there are no beams projecting below it, twelve or twelve and one-half feet is quite high enough for the ceiling, and the window heads should be brought directly thereto. All classrooms should be unilaterally lighted. The proper arrangement of the plan will render the blank wall spaces a decided help in the design.

The classroom should have but one door to the corridor, and this at the teacher's end of the room. This will enable complete control. In buildings of non-fireproof construction, the classrooms should be connected by single doors.

Wardrobes should be entered from classrooms only, and the usual doorway to the corridor should be omitted. The practice of placing open wardrobes in the corridor should be condemned. Damp and dirty clothing is not only an excellent vehicle for carrying disease germs, but a school so constructed will never be free from the schoolhouse odor.

In the construction of our building, all basement bearing walls should be of masonry. Non-bearing walls may be of studding, or, better, solid plaster partitions. If of studding, care should be taken that proper fire stops are provided at each story level. The basement ceiling should have a heavy coat of plastering on metal lath, and it should be seen that there is no free passage for fire or smoke around or thru the heat and vent ducts leading to the stories above. Such openings as are absolutely necessary should be rigidly cut off by fireproof inclosures. Wood furring, sheathed dadoes, and ceiling should be entirely eliminated, and the interior wood finish should be reduced to the minimum.

If the foregoing conditions are fulfilled, our building may be considered safe. It must be remembered, however, that good construction does not entirely remove the necessity for other safety measures. The building should receive efficient care, and occasional inspection of every part of it should be made to see that combustible rubbish is not allowed to collect, that inflammable oils, waste, or other material is not stored in closets and hidden away to furnish the cause for incipient fire and panic.

Much have we heard recently in the public prints of fire escapes. They should be avoided if additional inside inclosed stairways can be erected If placed upon a school building, they should be in the form of inclosed outside stairways which may be used daily for dismissal; otherwise they will prove ineffective when the trial comes, and an added danger rather than a safeguard.

As embodying the principles herein enumerated, I wish to present views of a number of the more recent school buildings of St. Louis.

As a rule the buildings will accommodate about 1,200 pupils in all the grades, and contain twenty classrooms, a kindergarten, a room for domestic science, a manual-training room, a principal's office, two gymnasiums and playrooms, toilets for pupils and teachers, storerooms, and the necessary space for the heating and ventilating apparatus, fuel, etc.

In plan the buildings show a number of radical departures from the conventional type of school-building, wherein the central corridor, lined with rooms on either side, is necessarily dark. The effort has been to introduce outside light into the main corridor thruout the greater part of its length, to group the classrooms around stairways and exits, and to arrange the wardrobes for outside light. It will also be noted that wardrobes are entered from classrooms only. This arrangement, tho unusual, is found to give the teacher absolute control, adding to the decorum of the school. as well as enabling their perfect ventilation; the air current entering the room at the inner wall, making the circuit of the room, passing thru the opening to and along the wardrobe to the vent.

The general plan developed by these requirements is necessarily more or less similar in all of the schools, approximating in form the letter *E*. In all cases the sites have been wisely selected to permit ample space surrounding the building, affording generous playgrounds, as well as good light and air.

The classrooms are 24 feet wide, 32 feet 6 inches long, with a clear story height of 12 feet 6 inches; and are arranged for left-hand lighting. The classrooms, equipped with single desks, accommodate 54 pupils in the lower and intermediate grades, and 48 in the higher grades. Natural slate blackboards are placed on the three inner sides of the rooms, are 3 feet 6 inches in height, and range from 2 feet in the lower grades to 2 feet 5 inches in the upper grades from floor to the chalk rail.

The wardrobes are 5 feet 3 inches wide, 16 feet long, and are provided with shelves and hooks on the side walls; a portable umbrella rack is also provided for each wardrobe. A bookcase containing 65 running feet of shelving, a bracketed shelf over the blackboard at the front of the room, and a picture-molding complete the equipment of the classroom.

The corridors are never less than 14 feet wide, have ample outside light, and give direct access to all classrooms, stairways, and exits. Several lines of flush metal picture molding are provided for the hanging of casts and pictures.

The stairways are placed at the ends of the main corridor, and central to the group of rooms on either side of the central axis of the building.

They are always 5 feet wide, with ample landings, and are built of concrete with solid wall-like balustrades; the risers and skirtings are of marble, while the treads are finished in asphalt. Treads of this character are not only non-slipping and practically noiseless, but are easily replaced when worn out.

The purchase of ample sites has made it possible to limit the height of the buildings to two stories. The basements are 15 feet in height, and are placed well out of ground. Where possible, a level entrance from playground to basement floor is provided, while the principal entrance leads directly to the first floor.

The first and second stories are 12 feet 6 inches in height, the ceilings unobstructed by beams, and with window heads brought directly thereto.

All buildings are of fireproof construction except the pitched roofs, in which cases, for economical reasons, the roofs are of mill construction covered with heavy matched sheathing and tile. All outer and interior bearing walls are of hard brick laid in Portland cement mortar. Interior non-bearing partition walls are of hollow tile, and the buildings are plastered with cement plaster.

The floors are constructed of reinforced concrete and finished with narrow maple flooring, smoothed and oiled. Basement floors are of granitoid or cement.

The plumbing is of the most approved sanitary type. Individual seat-action closets are provided in the general toilets in the basement, and the emergency toilets on each floor for the pupils. The urinals are of glass, are automatically flushed, and are of the ventilated type. Special provision has been made for the ventilation of the toilet rooms. Drinking fountains are installed in the corridors, in the basement, and playgrounds.

Each room is provided with a self-winding electric clock, regulated from a master clock with program ringing device located in the principal's office.

The entire building is wired for electric lighting. the fixtures used being of the short-stem cluster type, equipped with holoplane shades.

Aside from their desirability on the score of light and air, the large school sites have not only provided ample playgrounds. but have given opportunity in a modest way for object-lessons in the art of landscape gardening; and each school ground has been made to present some instructive feature, awakening an interest in the knowledge of decorative plants and their use in the embellishment of the home.

All buildings are designed for a low-pressure steam plenum system of heating and ventilating, this work being carried on simultaneously with the plans of the building.

A fresh-air supply of 30 cubic feet per minute is allowed for each pupil. This necessitates about eight complete changes of air per hour in every classroom. Since the corridors and basement are occupied intermittently, four changes per hour are planned for these localities. All plants are designed to secure these results, with a safe margin of reserve in case it should be required for any reason.

The fresh-air supply to all buildings, and particularly those in the densely populated districts, is carried thru an air-washing device which practically removes all foreign matter before it is admitted to the classrooms. The temperature is controlled by thermostats placed in each room, the tempered air being delivered at 70°.

Numerous smoke tests have been made to determine accurately the distribution of air in classrooms of various schools. These tests indicate quite clearly the air movement. The fresh air entering is evenly distributed over the rear two-thirds of the room, is gradually driven downward by the continued entrance of fresh air from above, and from the breathing line working both downward and forward to the wardrobe opening, passes out and into the vent.

It may be interesting to note the cost of heating and ventilating some of the schools. One matter drawing special attention is the fact that a new school requires above 10 per cent. more fuel to operate the first year than is required for succeeding seasons. A cause for this might be found in the fact that the walls are not thoroly dried at out the start, and act as a better conductor for the heat.

The figures for nine schools, extending over a period of four heating seasons, with coal at $1.905 per ton, make the fuel cost per season for heat and ventilation amount to about 12½ cents per seat. Even if this entire amount were chargeable to ventilation alone (the item of heating being neglected), the fallacy of arguing against ventilation on account of extra fuel required is immediately shown, when an adequate supply of fresh, wholesome air can be provided for each child at so insignificant a sum as 12½ cents for an entire heating season.

INNOVATIONS IN SCHOOL ARCHITECTURE

WILBUR T. MILLS, SCHOOL ARCHITECT, COLUMBUS, OHIO

In common with all other arts of man, the development of architecture has been a process of evolution. What is true of the art in general is also true of its various branches in particular. In no department of the builder's art is this more true than in the designing of school buildings. In this country the log schoolhouse was the prototype from which has been gradually developed the more or less handsome, complex, and well-equipped school building of the present day, and between the log cabin and its present wonderful development have been many stages scarcely distinguishable, as they were reached and passed, but wonderfully interesting when viewed in retrospective. In the process of evolution it is ever the innovation of today which becomes the requirement of tomorrow—that which today we receive with scant courtesy, tomorrow we demand as an essential, and urgently necessary.

Further, in the designing and construction of school buildings there is one rule governing in greater or less degree all the affairs of life, which is particularly worthy of careful attention. It is the rule that every action, whether great or small, is important. In reading and in actual life one is almost constantly receiving fresh evidence of the truthfulness of this statement. Often we stand aghast at the terrible results produced by an act regarded by the performer as insignificant, and again one is filled with satisfaction and joy from learning of the happy effect produced by a passing word of cheer and hope. So in buildings it is frequently the improperly hinged door which produces the panic, or a very slight disregard of well-known hygienic principles which is responsible for the spread of great epidemics. Stress is laid upon this thought because the limitations of the subject of this paper require us to consider things which in themselves seem small and of minor importance, but after all it has ever been a peculiar phase of the process of evolution that the small, obvious, and seemingly unimportant things are often the last to be thought of because of the tendency of human nature to grasp first those things which are vast and comprehensive.

Probably the most remarkable innovation in school architecture is the tendency to incorporate into new school buildings many principles of hospital design, which reduce to a minimum all conditions inimical to perfect physical health. This is in confirmation of the splendid theory that, in order to produce the best educational results, pupils must be and remain in perfect physical condition. The details involved under this head would require much time for description, but, in brief, attention may be called to the most important features.

Years ago it was possible to get lumber fairly well seasoned by natural processes, but that time has long since passed away. The best flooring and trim now possible to obtain have been kiln-dried by a process which appears to take the life out of the timber at the same time as it removes the moisture. As a result, baseboards, window and door trim, and particularly flooring, shrink until unsightly cracks and openings are found everywhere, even in the best buildings. To meet this defect many firms are now supplying metallic trim to take the place of wood, and artificial plastic floors are obtained, put down with a trowel, the baseboards being made continuous with the floor, with a neat cove or quarter-round molding where the base meets the flooring, thus obviating the necessity of any cracks either in floor or finish. The wood work of windows, which in former years was heavy, elaborate, and often ornamented with coarse carving or other ornaments, is made of the plainest possible patterns or altogether eliminated, the finish at windows being made out of rounded plaster jambs. Blackboards are provided with troughs so constructed as to catch and retain chalkdust, and in the best buildings provision is made for carrying all such dust out of the room into exhaust ventilating ducts. Walls are no longer made as rough as the plasterer can possibly make them, but smooth and so decorated that they may be frequently cleaned without damage to the wall or decoration.

Ten years ago, plumbing fixtures of the most unsanitary patterns were frequently installed in school buildings, often encased in woodwork and frequently located in dark unventilated basement rooms. There are undoubtedly hundreds of such in daily use at the present time. But no buildings now being undertaken are considered even to approach correct practice unless all of the plumbing fixtures are located in well-lighted, well-ventilated rooms and equipped with every device which will promote correct hygienic conditions. Further, the plumbing fixtures themselves must be of the most sanitary pattern, so designed that every part of the fixtures may be gotten at with ease, and possessing mechanism of the simplest detail. In addition, the best buildings are no longer swept with brooms, but are cleaned by the vacuum-air-cleaning system, which raises no dust and thus reduces the risk of unhealthy conditions. The old style of water-cooler, drinking-fountain, and drinking cups is a thing of the past, and pupils today use a drinking fountain in which the lips are never in contact with any vessel to be used by other pupils.

In addition to all these refinements, there has probably never been a period in the world's history when so much attention was paid to correct lighting, heating, and ventilation as we are now bestowing upon buildings even of moderate cost. There are undoubtedly many people whose eyesight was impaired by the improper lighting of the schoolrooms of one or two generations ago, but the importance of proper lighting is now everywhere recognized, if not actually practiced, and undoubtedly the day is at hand when all of our states will require some standard of this matter. Great study is also being given the question of proper colors which walls may be tinted without injuring or wearying the eyes. The modern schoolroom is being heated by various processes, designed for the most part by competent heating engineers, and accompanied by complete ventilating plants which not only guarantee a positive change of air every few moments, but also deliver air of the proper purity, humidity, and temperature.

But in addition, the better class of buildings now contain many features for the convenience, safety, and health of the pupils, such as rest-rooms, or hospital rooms, to which pupils who become suddenly ill may be taken for first-aid treatment, pending the arrival of the physician; sufficiently equipped lunch-rooms where hot coffee, tea, cocoa, and other edibles may be obtained; playrooms equipped with more or less gymnasium apparatus, and in the larger buildings fully equipped gymnasiums, roof gardens, etc. All of the foregoing innovations are aimed at the conservation of the health of those who must use the buildings, the elimination of all features which tend to produce disease, spread epidemics, or influence physical defects of any sort, and to bring about the production of conditions which will encourage the most perfect physical development of all school children and workers.

However, there are at least one or two very marked tendencies at the present time toward new methods of school design and construction. One of these originated with Dr. R. W. Corwin of Pueblo, Colo., who recently published a pamphlet entitled "The Modern Model School House." The idea championed by Dr. Corwin is that it is a mistake to build elementary schools in the shape of large or many-storied structures, but that wherever it is at all possible elementary schools should be constructed of one-story buildings, the schoolroom units being separated from each other, or at most not connected by anything more than such hallways as may be unavoidable. Whether the ideas of Dr. Corwin will prove to be feasible in very many of our cities is a matter which only the future can tell, but that buildings of this type may be used advantageously in a large number of towns and villages is a statement which can hardly be questioned.

Many advantages are claimed for this arrangement, some of which are: (1) The number of schoolrooms may be made always to meet the demand, which is certainly not the case with a building of many rooms. (2) When several districts are crying for more room, and the treasury is low, the board can accommodate each district at less cost. (3) It is probably cheaper than any other plan because there is less waste room, no halls, corridors, or stairways to upper floors. (4) The risk from fire or panic is practically negligible. (5) Light may be obtained from any direction desired, and ventilation may be arranged on any of the well-known plans. (6) Pupils in adjacent rooms cannot annoy each other by marching, singing, or otherwise. (7) It is claimed that a homelike atmosphere pervades a one-room building which is impossible to obtain in a larger structure.

Another marked tendency toward change in school architecture has become most noticeable since the Collinwood catastrophe. How much the building laws of other states have been affected we are unable to state, but in Ohio this catastrophe resulted in a great deal of what may be called "stampede legislation." As in all such cases, much of this legislation is ill considered and will either need modification or the people of the state will be called upon to undergo considerable hardship, and to spend much more for school buildings of a given type in the future than has ever been spent before. The general effect of the laws enacted in this state last winter has been to give the state inspector of workshops and factories plenary powers and unlimited discretion in the making of requirements to govern the designing and construction of school buildings. We understand that this department is preparing a printed statement to be sent to architects and schoolmen, covering the subject fully, but from advance information we are advised that some radical requirements are made which will have a tendency completely to revolutionize school architecture in Ohio. A few of the new rulings are the following: (1) Every room in a building must be provided with two fireproof exits to the ground, neither of which can have any communication with the entrance to the basement. That is, the stairways in the main corridors, even tho there be several of these, will be considered collectively as one exit, and each schoolroom must have an additional exit not connected in any way with the corridors. Thus an eight-room building must be provided with four fireproof stairways in addition to those provided in main corridors. This will increase the size and cost of an eight-room building probably 15 or 20 per cent. The ruling with reference to separate basement entrances will make it necessary in all buildings of ordinary size for the pupils to pass out doors and thence to the basement by an outside stairway. The effect of this arrangement will be to force the placing of toilet rooms on each floor, thus further increasing the size and hence the cost of the building.

Another requirement of the department is that if the basement story extends more than five feet above ground it will be counted as the first story, and no auditoriums or study-rooms seating more than one-hundred pupils will be permitted in the second story of buildings which are not fireproof. This requirement will affect practically all of the secondary buildings in the state and will render it impossible hereafter to provide large study-rooms or auditoriums in the second story of high-school buildings unless the same are of fireproof construction. Obviously, the construction of the auditorium in a wing on the first floor greatly increases the size and cost of the building without any proportionate increase in the capacity of same.

In the foregoing portion of this paper reference has been made in all cases to innovations which have already received recognition and in some cases may be referred to as characteristic of all of the best schoolwork of the present day. In conclusion we request the privilege of suggesting two or three innovations which we believe will work for the immediate and permanent advancement of school architecture, and are therefore worthy of the attention of all educators and school-board members. We venture to suggest the advisability of some provision whereby all teachers shall be required to attain more or less proficiency in the subject of school architecture. Probably no one will deny the statement that the majority of school teachers, professors, and even superintendents know almost nothing about the correct principles of school architecture.

Most of our citizens, and indeed most of our educators, appear to think that if the public can only be induced to favor a big bond issue once in so many years, architects and inspiration can be called up to meet every occasion, and the interest of the citizen and educator is not needed. It would be hard to imagine a more fallacious idea, for, as Ruskin says, "It is only by active and sympathetic attention to the domestic and everyday work which is done for each of you that you can educate either yourselves to the feeling or your builders to the doing of what is truly great." If this is a fatal condition when characterizing the public, how much less excusable is it when those most interested are affected thereby!

The primary rules of architecture are as simple as the primary rules of any other art or science, and no other is of such general interest because no other concerns so many people. These statements are equally true applied to the particular branch known as "school architecture." Yet we study in school buildings whose architecture we take for granted, and we submit to taxation for buildings whose merit or lack of it we do not appreciate—all because we don't know any better. Quoting Ruskin again, we would undoubtedly all "like best things best if we only *saw* them." However, the adage, "If ignorance is bliss, 'tis folly to be wise," cannot excuse our lack of knowledge about these things, for the lives and health of our children and our neighbor's children are at stake and it is our duty to know.

The second innovation would be (1) the encouragement of education among school-board members themselves, similar to that which has been suggested for teachers and superintendents, and (2) persistent agitation in favor of the employment of professional advisers by all boards of education when architects or plans are selected for new schoolwork. In this country the average school board is composed of four to seven men selected from all the walks of life, without much reference to their qualifications for the work. It is no unusual condition to find a board comprising a minister, doctor, lawyer, blacksmith, farmer, and politician—or in the minister's place may be a saloonist. If you were asked whether you would choose such a board to design and construct an equally complicated $50,000 building for yourself, would not the proposition seem preposterous? You would ask immediately: What do men of their training know about buildings? There is only one answer possible—they know practically nothing. Some boards count themselves fortunate in having members with some experience in building, but this is the exception rather than the rule, and the judgment of even such "practical" men is rarely of any value except in constructions. It is often a positive detriment. While there are exceptional cases, of course, generally speaking it is absurd to suppose that boards thus constituted are able adequately or satisfactorily to pass judgment upon architectural schemes for school buildings, and the marvel is not that many of our buildings are bad, but that they are not much worse.

On the other hand it is certain that the school buildings in this country generally recognized as the best, and which indeed are the standards by which all others are measured, are those structures into which the properly skilled architect was allowed most freely to infuse his architectural wisdom, and in which the dictation of the board employing him was kept at the minimum. Therefore, assuming that our boards are honestly desirous of securing best results for both public and school children, we recommend that every board employ a professional adviser to direct them in selecting architects and architectural schemes, being assured that this plan would result in immediate and remarkable improvement in the school architecture of this country.

The third innovation we would recommend is the encouragement of sentiment everywhere for fireproof and panic-proof school buildings. The cost of fireproof construction has been brought to such a figure that there is no longer excuse for buildings not fireproof. It is certain that in Ohio, at least, it will henceforth be possible to build fireproof buildings for less money than to construct combustible ones which will pass the inspection of the workshop and factory man, and as his requirements seriously mar the architectural effect of the buildings designed in accordance therewith, fireproof construction will be required to produce structures architecturally beautiful and also acceptable to the state departments.

In view of the fact that eighteen million human beings, or more than one-fifth of the entire population, are constantly using our school buildings, and that the lives and health of these individuals are of more importance than any educational phase of the subject, have we not a right to insist that the school buildings of the future shall be absolutely safe, and absolutely healthful, as well as equipped with those conveniences which facilitate the acquirement of complete educational equipment?

LIBRARY DEPARTMENT

SECRETARY'S MINUTES

OFFICERS

President—JOHN R. KIRK, president, State Normal School, Kirksville, Mo.
Vice-President—MARY EILEEN AHERN, editor, *Public Libraries*, Chicago, Ill.
Secretary—IDA J. DACUS, librarian, Winthrop Normal College, Rock Hill, S. C.

FIRST SESSION.—WEDNESDAY MORNING, JULY 1, 1908

The Department met in the auditorium of the Woodland Branch of the Cleveland Public Library. The meeting was called to order by the president, John R. Kirk. In the absence of the secretary Miss Caroline Burnite, director of children's work, Cleveland Public Library, was chosen acting secretary.

William H. Brett, librarian of the Cleveland Public Library, led a Round-Table discussion which he introduced by some remarks upon the library of today as compared with the library of twenty or thirty years ago. Among those who took part in the discussion were: George F. Bowerman, librarian of the Public Library, Washington, D. C.; Herbert Baillie, librarian of the Public Library, Wellington, New Zealand; Caroline M. Hewins, librarian of the Public Library, Hartford Conn.; Linda A. Eastman, vice-librarian of the Cleveland Public Library; Grace Oviatt, supervisor of school libraries, Cleveland; Cordelia L. O'Neil, principal of children's work, Cleveland Public Library; Mary E. Ahern, editor of *Public Libraries*, Chicago, Ill.; Rhoda Shepard, supervisor of reading-clubs, Cleveland Library.

The Round Table was followed by a paper by President Felmley of the Illinois Normal University, subject, "How Far Should the Course of Normal Schools and Teachers' Colleges Seek to Acquaint Our Teachers with the Way to Organize and Use School Libraries?"

A general discussion followed led by Milton Frye, instructor in English, McKinley High School, St. Louis, Mo., followed by Maud A. Goodfellow, librarian State Normal School, Fitchburg, Mass.

The president appointed the following persons as a Committee on Nominations:

James H. Canfield, librarian, Columbia University, New York City;
Miss Effie L. Power of the Normal School, Cleveland, Ohio;
I. C. McNeill, superintendent of schools, Memphis, Tenn.

SECOND SESSION.—THURSDAY MORNING, JULY 2

The Department met at 9:30 o'clock and was called to order by the president.

Dr. James H. Canfield, librarian, Columbia University, New York City, led a Round-Table discussion on the general subject of "Methods of Administering Public Libraries for the Benefit of the Public Schools." His prefatory address was followed by remarks from Edward W. Gaillard, supervisor of schoolwork in the New York Public Library; H. N. Parsons, head of school department of the Buffalo Public Library, and Miss Esther Straus, head of children's department, Cincinnati Public Library.

The Committee on Nominations reported:

For *President*, Miss Mary Eileen Ahern, editor, *Public Libraries*, Chicago, Ill.
For *Vice-President*, David Felmley, president of Illinois Normal University, Normal, Ill.
For *Secretary*, Joseph F. Daniels, librarian, State Agricultural College, Fort Collins, Colo.

The report was unanimously accepted.

THIRD SESSION.—Thursday Afternoon, July 2

The Department met at 2:30 o'clock, and was presided over by the vice-president, Miss Ahern.

The two papers of the afternoon were on the topic, "How to Make the Library More Profitable to the Students of School Age." The paper from the "Superintendent's View-point" was presented by L. E. Wolfe, superintendent of schools, San Antonio, Texas, and from the "Library Worker's View-point" by Effie L. Power, instructor in library use at the Normal School, Cleveland, Ohio.

The discussion was led by Homer H. Seerley, president, State Normal School, Cedar Falls, Iowa, and was followed by I. C. McNeill, superintendent of schools, Memphis, Tenn., and by Wm. M. Davidson, superintendent of schools, Omaha, Nebr.

A motion was made that a vote of thanks be extended to Mr. Brett, librarian of the Cleveland Public Library, for his courtesy and hospitality in entertaining the section and visiting librarians and teachers.

An interesting feature of the meetings was the exhibition of methods of work with schools, made by the libraries of Buffalo, Pittsburg, Cleveland, Dayton, and the Ohio and Oregon state commissions. The exhibition included photographs, publications, collections of books for school use, bulletins made by the students of the Western Reserve Library School, and mounted pictures for circulation.

The presence of many visiting librarians, as well as representative members of the National Education Association, led to many comments upon the increasing interest manifested in the Library Section and its broadening opportunities for service.

Caroline Burnite, *Acting Secretary*

PAPERS AND DISCUSSIONS

ROUND TABLE

TOPIC—THE LIBRARY OF TODAY AS COMPARED WITH THE LIBRARY OF THIRTY YEARS AGO

WILLIAM H. BRETT, LIBRARIAN, PUBLIC LIBRARY, CLEVELAND, OHIO

The meetings of the Library Section of the National Education Association have been growing in importance and value from year to year since its beginning. Its published proceedings contain papers which are valuable as drawn from actual experience in the schoolroom and the library. We come together today to consider how best we can work together. As librarians we recognize the fact that it is the free public school which makes the free public library possible. It is well that as teachers and librarians we should take counsel together as to how the library can best serve the school, and what the schools can do to make the library more valuable in the community. The public schools have been established for three generations or more in this country. The public library is less than half as old, and its greatest growth has been within the last third of a century, indeed within the last twenty-five years the greater library buildings have been built, and thruout the country, town and village libraries have been built by the thousands, many of them by the munificence of the man to whom we in Cleveland owe this building in which we are meeting. Covering the same period the number of volumes in our libraries has been increased fivefold until there are now approximately sixty millions of books available for use. Library work has been systematized, better methods have been introduced, and library service greatly improved; a higher standard of preparation is required, and schools have been established for the training of library workers.

The old library was a place for the storage and care of books—too often somber and unattractive, and planned rather for their safe-guarding than for their convenient use; the modern library has life, light, and beauty—not only offering every facility for the studious use of books but recognizing reading as a delight. In nothing does the modern library differ more strikingly from the old one than in its recognition of the child. The old library was for the adult; the modern public library provides as fully for the needs of the child. It has a room for children equal in convenience and beauty to those for adult readers, and in connection with this, story hour and clubrooms, the whole in furnishing, in adornment, and comfort giving to many of our less fortunate little ones their best idea of a comfortable home.

The public school, training a nation of readers, makes the public library not only possible but necessary. The school is doing much to make the library more efficient by the use of library books in all the grades, by systematic training in high schools in the use of reference books, catalogues, bibliographies and the various helps to book use; they will send out from the schools young men and women prepared to make the best use of the library resources available to their own profit and enjoyment thru life. From the normal school giving a definite course of training in library use as is done so effectively in the Cleveland Normal School, teachers will go out to the schools with a knowledge of the resources of the library, able to use them in their own work and to instruct their pupils in turn how to make the library most useful.

The library, by placing collections of books, carefully selected, in schools of all grades, in charge of competent librarians; by taking charge of school collections and increasing them; by studying the needs and supplying as fully as possible the professional literature needed by the teachers in their work, and the collateral reading for the pupils—the whole under the charge of supervisors working in cordial and intelligent sympathy with the schools—is doing something well worth while now, and may do much more.

The program of these sessions has been arranged to discuss the questions I have thus merely suggested, and for this session we are fortunate in having present several upon whom I shall call who are engaged in this work. I shall first ask Miss Caroline Burnite, the director of children's work in the Cleveland Public Library, to tell us something of her work.

DISCUSSION

Caroline Burnite, director of children's work, Cleveland Public Library.—The point of contact of the librarian and the children differs so greatly from that of the teacher and the children, one might easily conclude that the work of the librarian and her influence are diffuse and consequently lacking in real force. Between the hours of three-thirty in the afternoon and eight in the evening, during the winter, several hundred children visit one of our children's rooms for the purpose of selecting books for home reading or for use in the room. Each of these children comes in contact with but one of the two children's librarians who are in attendance. Compared with the contact of the schoolroom, the amount of personal attention a child receives is momentary and accidental.

In order to make this work effectual there must be in this momentary and accidental contact the most definite effort. The children's librarian must have judgment and insight, which is acquired in a degree by careful study and by experience, to be able to present in the possible half minute she has with a child a book which is adapted to his years and taste and give him what would be his own interpretation of it, not her own, or to speak of the theme or the incident which has the keenest interest for him. In this way it is possible to open a book to a child which he would otherwise not read, and thereby arouse an interest in an unknown subject.

In comparing the scope of the work of the library with that of the schoolroom the very foundations of library work are touched. The field of the teacher is the instructional; the field of the children's librarian is the recreational. She has the greater task of developing interests which are spontaneous or latent. It is her opportunity to build upon these spontaneous interests the habit of systematic, recreative reading. Should she force children into a conscious effort of thought she would be infringing upon the province of the school, which is study. This does not mean that she cannot arouse a boy's interest in electricity or a girl's in biography, but it means that she must ever follow a child's natural interests, not crowd in upon him things he ought to know.

The library has two organized means of stimulating a child's interest—the story hour and the club. Here again these means have little value unless they are most carefully directed. But, if stories which have vitality are told or read to the children in the story hour or the club, it creates an interest in a wider range of literature than they have already.

Also, the chief point to consider in library work for children is the selection of the books. In books for children there are two great elements. The first is the human element, the portrayal of life, which is the basis of books of fiction, biography, history, folklore and mythology. The other is the scientific element, and this is the basis of books of nature, arts and crafts, science, etc. Books for children with the scientific element must be judged by the same standards as adult books of similar nature, that is, by accuracy of statement. Books with the human element must be judged often by different standards from adult books. They must contain the nobler elemental human motives regardless of whether the actor ever lived—for with children the line between fiction and fact is a false one. The main requisition is that truth and honor should be governed by primal laws, which for instance never permit a boy under any circumstances to break his word or tell a lie, often not a practical standard of honor in adult fiction.

GRACE OVIATT, supervisor of school libraries, Cleveland Public Library.—We have divided our work in the schools into three sections: (1) the high-school libraries, (2) the school libraries, and (3) classroom libraries—these are being put into both the grammar schools and the primary schools.

The high-school work is chiefly reference work. In every high school there is a collection of books which is the property of the school itself. The public library supplements this collection and furnishes the library assistant to take charge of the work. The librarians of a number of the high schools give a course in the use of reference books.

Two of the high schools are at some distance from the nearest branch, and they are extending their work to the neighborhood. They are also in coöperation with the teachers of the grade schools near at hand.

There are also the school libraries. These are quite distinct from any library that the principals may have in the schools (for here most of the schools own a collection for the use of the teachers and the children in the seventh and eighth grades). School libraries consist of books from the main library, and the collection varies in size according to the wants of the teachers and of others with whom the librarian comes in contact. And for this work we send out our librarians who work also with any neighboring schools which may be near (often with the parochial or Lutheran schools), and among the adults in communities that might not be able to get their books from a branch. Of course there is a constant circulation in the district, and books are constantly being sent out by the main library to supply the demands upon the school library.

In addition the librarian does story-telling wherever it is demanded in the rooms of the building, and does reference work for the teachers, taking their demands down to the main library and hunting up just such books for them as may be necessary for their work,—as the high-school librarian does for the high-school pupil.

The third division is the classroom library, and this is quite a personal work with the teachers, anywhere in the city. An applicant anywhere may receive a set of books, and she becomes a librarian upon a small scale, and issues those books to the children of her room, just as the ordinary library issues books to those who are its patrons. The work of the teacher is purely voluntary. We introduce the books in the outlying schools or wherever we feel that there may be a demand for them, but it is not compulsory, it is not urged. The principal simply lays the plan before the teachers, for we desire a voluntary feeling upon the part of the teachers, since we feel that in that way we secure the best results; the teacher then sends in an application blank, and on it she states what she wishes—either the titles of fifty books that she would like, or the subjects that she would like particularly to have. This we encourage even in cases where the books named are not just the books best suited to the grade, because where a teacher shows enthusiasm we feel that she can be directed. The books are sent out and with them general instructions, but we allow the teachers to use their own judgment about methods of use. All we demand of them is good care, good use and an account of the circulation. Then the teacher is at liberty to use the books in any manner that she thinks best—of course somewhere within limitations.

Each month the teacher is visited—ostensibly to have the circulation taken—but there are many other things that enter into the personal work. The teacher asks questions about the books, or she may wish to exchange some books which she has for others. There are many topics which come up which may be talked about at that time. We have felt that with these monthly, or bimonthly, visits a great deal can be done, because it keeps the worker in touch with the main work that is going on.

Teachers not only make application for books, but they come to the library to make selection and we have then the opportunity of talking over with them what is required in their grade. If there has been a change of grade, and they are not acquainted with the requirement of the grade to which they have been assigned, they are open to suggestion. Or, if they have changed their district, and where they have been hitherto working with German children are now working with Polish children, there is a chance for suggestion that way.

We feel that the personal side is what counts—the chance to get the teacher to the library and to get the library to the teacher, and then to come in contact with her as much as possible, to catch her spirit, to get acquainted with the schoolwork and to get the school point of view. It has been our aim to have the school point of view and to have the school appreciate our point of view, and we feel that the personal contact has been the thing that has brought that about the most of all.

Cordelia L. O'Neill, principal of Marion School, Cleveland, Ohio.—The Marion School is largely foreign. We have about 80 per cent. of children who come from Austro-

Hungary, Germany, Roumania, Russia, and various parts of Europe. My experience, altho it will be peculiar to some extent, is sufficiently typical to illustrate the work that is being done for the public schools by the public library.

Our problem of taking the foreign child and converting him into an American is difficult. The first point that we make is to familiarize the child with the language; the second is to arouse in him patriotism for and love of America.

We accomplish the first in this way: The children come to us at all ages, and know not one word of English. They are put into an unclassified, ungraded school and first trained in the rudiments of the English language. According as they are able to proceed they are sent into the other grades. Sometimes it happens that in one year the older children will pass through four grades; the younger children, of course, going very much slower. We do not use the school library in this class, but in the second grade and from that on up we have the classroom library. The books are numerous. They are simple and are used for the purpose of familiarizing the children with the English language. We find that that is successful. We gain one point.

We have the clubwork in the Wade Day Nursery. We do not have it in the school owing to lack of room. We select a certain number of children from the sixth, seventh, and eighth grades who on a certain day in the week go to the nursery and there we have a story hour—boys and girls separately. Stories of biography and English literature are alternated with history stories. We have proven the immense advantages to be derived from this story hour. Our children cannot all attend the story hour, and at a recent examination in one of the upper grades the children were asked to tell a story as a part of their examination. It was most encouraging to note the difference in the stories. Those written by the children who had time for the story hour were superior in language as well as in portrayal of thought. I think that, more than anything else, brought to our notice the benefit that was being done by our story hour.

Mr. Brett has remarked that many college graduates are coming into our library service. This is much appreciated in the work of the children who come in to the story hour club. So vast is the influence of the librarian who is versatile in her work, so much vaster than the one who is limited in her resources, that we are more than anxious to urge and to suggest that the women who are sent out into contact with the schools may be women who are broad in education. One word, one half-hour may change the course of a child's entire life, if the right suggestion is given to him at the right moment.

Caroline M. Hewins, librarian of the Public Library, Hartford, Conn.—I am come from a comparatively small city, of only about 100,000 inhabitants, where we have a circulation in our boys' and girls' room of not more than 40,000 volumes, with perhaps 14,000 in the school branches.

Our children, about 75 per cent. of them, are what we call "East Side children," of foreign parentage—Jews, Italians, and some few Lithuanians; and we have of course to assist the schools in teaching them to read English readily. Sometimes the teachers in the evening schools bring to us grown-up boys for suitable English books.

We send out at the beginning of the year graded libraries to the schools that are not very near the center of the city. The books stay there from the time they go out in the fall until the close of the school year. Then they are called in and examined for needed repairs.

We are trying to send the schools, among other things, books that tell how to make and how to do things; and I was very much pleased one day on visiting a school when the principal showed me a miniature Wild West show on the table, explaining to me that this had been made by a little girl of ten years of age, and that she had gotten the idea out of Lena Beard's work, *Things Worth Doing*. We have put it in our children's room and mounted it, and keep it there for exhibition purposes.

I wish I had brought with me, and I should have if I had known I was to speak here, something which we use in the way of a picture bulletin, some very interesting costume pictures that one of our little girls has made. She is thirteen years of age, is in the ninth grade, and her father, who is a physician—a specialist in nervous diseases—is very careful of her and lets her go to school only one half-day, so she has half-days to amuse herself, and she spends these afternoons in copying figures of historical costuming. We let her have anything she likes, and I have eighteen plates that she has copied in free-hand and colored, from books on historical costuming—from William the Conqueror down to the Revolution. We have them put up as a picture bulletin in the children's room, and some of the children in the other schools have wished to see what they can do too. They cannot do much, compared with her work, because she has a special talent for it, but a whole roomful of them have been drawing Dutch pictures.

Then we help the children in a great many other ways; and while Miss O'Neill was speaking of the worker's resourcefulness and of the lack of resourcefulness in story-telling, I thought of something that happened to me several years ago. I have a nephew, who when he was about nine years old was very much interested in a witch story (which I thought was a very stupid story) and I told him another one which he liked very much. I was soon afterward asked to speak before a kindergarten club. As the kindergartners always want something new, I went thru a great many volumes of kindergarten magazines and found the stories, many of them, unsatisfactory. So I related to them the story I have just alluded to, and when I came to a certain point I said "Which of you can finish this story for me?" There was a silence. Not a person in the room could finish that story. I was asked to go to a city and speak on another occasion. I told the same story, and on reaching the same point in it, I said "Who of you can go on with this story from that point?" Nobody. One had a glimmering of the author. I said "Who knows the name of the story I have been telling you?" Not one. There was a dead silence. I said "I have been telling you Sir Walter Scott's 'Lay of the Last Minstrel,' and it might be well for some of you to go back to a book that was written before the last year." I have tried the story many times. I tried it before a combined meeting of teachers and librarians in the eastern part of the United States, and *one* librarian knew it.

HERBERT BAILLIE, librarian of the Library of Wellington, New Zealand.—*Mr. Chairman*: Although I have traveled a long ways east, I have not acquired the quick-wittedness that seems to be a very desirable characteristic of the librarian; in fact all of your librarians seem to have it, as well as the gift of speech. Perhaps if I explain how and why I am here you will let me off.

The fact is, that a report of your American library system has reached that far-off colony of New Zealand and that report reached my committee which has the library spirit, and it kindly sent me to the United States to study your methods. In fact I knew nothing of the American library system when I took up the library work in Wellington, New Zealand.

A number of points that I have wished information on have been handled by some of the speakers, but I should like if some of the other speakers would give me in a kind of tabulated form the reason why librarians are taking up this work, if the schools are also doing it. It is a question that is being asked of me.

RHODA SHEPARD, supervisor of reading-clubs, Cleveland Library.—The clubwork arose in response to a demand on the part of the children themselves. There are in every neighborhood gangs of athletic boys, and groups of little girls who play together. These were the children who, represented by their leaders, applied for the use of the clubrooms for their meetings. Most of the clubs were organized according to parliamentary practice and the objects stated in their constitutions implied reading, debating, literary work and fellowship. The children themselves, and most of the constitutions, expressly stated pleasure as the first object

In the endeavor to fulfill this first requirement, an effort was made to follow spontaneously the interests of the children. In some instances these interests lay along the line of their schoolwork. Subjects for debate were frequently the outgrowth of their history and civics lessons. One club did quite a little general reading along the line of English history, including history, biography and related fiction. Their interest in this case was discovered by their accidental finding of Tappan's *In the Days of Queen Elizabeth* on the table when they came for their first meeting.

Current events formed a ten-minute part of the program in several clubs; heroic verse and the stirring patriotic orations of the early Americans were delivered by the members of one club of boys. This led to the reading of some biography also. A travel-talk illustrated with stereopticon views was given in the auditorium, as the result of some reading in travel. One club of little girls gave their dramatized version of Stockton's *Old Pipes and the Dryad* before an audience of parents and young friends. The play was given without the aid of costume or scenery. The children simply played it thru, and it was very much enjoyed by both players and spectators.

As to the effect on the children's general reading, by the enthusiasm of one or two leaders among the children themselves, a whole club might be led to the general reading of a particular book, and in some cases to the general reading of a particular author. And altogether the objects of pleasure and literary work in combination seem to have been fairly possible of achievement. The only means by which the children could be held were their own interests and interest—and they seemed to find these, for there were always more groups waiting to be organized than could be cared for at one time.

George F. Bowerman, librarian, Public Library, Washington, D. C.—I have worked in two different cities. In the first of these the teachers felt that the superintendent was prodding them on the one hand to higher educational standards, to a deeper study into pedagogy, to make them more and more efficient; and the librarians on the other hand were thrusting things upon them, trying to make them take upon themselves the work of the librarian. But when they once came to realize that the work of the library was helpful to them, that the circulation of the books in the schools was inspiring interest, then, gradually, they came to respond to the librarian's desire to co-operate.

In the city from which I came the response is almost unanimous. I am speaking now from under the eaves of the Capitol where money flows out by the millions every session of Congress—but the library gets very little of it. The House of Representatives resolves itself every spring into a City Council for the District of Columbia—and most of the members go fishing on those days. But some of them who are willing to stay are getting a little bit more interested each year, so that they are beginning to respond a little better. The teachers are responding because they realize that we desire to help them and also because they realize that they are not simply engaged in schoolwork, but in educational work, inseparable from the work of the public ibrary. They are not satisfied simply to let their work rest with the public schools but they wish to aid in educating and molding the character of the whole community thruout life; and they have come to realize that to do this the library and the school must be integrated, because the library has the children from twelve or fourteen years of age, on up to seventy, whereas the school, in most cases, stops in its work at from twelve to fourteen, so that the library has the biggest chance.

If I had known you were going to have an exhibition of material here, I would have contributed toward it an exhibition file of an *Educational Bulletin*, which we have printed by the multigraph process for our local teachers. In this bulletin we list the foremost educational articles, and all the new educational books added to the library.

Linda A. Eastman, vice-librarian, Cleveland Public Library.—Of course as educators, both as teachers and librarians, everyone present here is perfectly familiar with the statistics that are so startling when one first hears them; of the low age at which so many of our children leave school. In almost every town of size is the added problem of the foreign population, which is another startling proposition.

Now the question comes, What can we do with these children in those few years? The teachers feel how short their time is. We are certain from the day that they enter the school the point of contact between the school and the library should be made very strong, and when the children leave the school they should be turned over to the librarian for further attention; and we are trying to establish that point of contact. Every public-school teacher and every principal thruout the city should make an opportunity when the child leaves the school to impress upon that child's mind that there is still an avenue for education before him in the contents of the public library.

The graded schools are now making this subject a feature of the graduating exercises and there are one or two principals who make it a point in their own addresses at that time to say that the public library is a place where they will always find friends, and if not personal, living, human friends, just as real friends, in the pages of the books before them; and if they go to any strange town in this country, they can go to the public library and find friends. This year most of our branch librarians were present at the graduating exercises and they invited the children to get further instruction from the public library. At one of our branch libraries the graduating exercises for the nearest school were held, and at another one, by invitation of the branch-librarian, all of the scholars were invited for a special evening.

It is a point upon which I think both institutions can coöperate with much profit to each.

HOW FAR SHOULD COURSES IN NORMAL SCHOOLS AND TEACHERS' COLLEGES SEEK TO ACQUAINT ALL TEACHERS WITH THE WAYS OF ORGANIZING AND USING SCHOOL LIBRARIES?

DAVID FELMLEY, PRESIDENT OF THE ILLINOIS STATE NORMAL UNIVERSITY
NORMAL, ILL.

The purpose of the school library is to supplement, strengthen, and broaden the instruction in every subject, so far as this may be done thru the aid of books. To accomplish this end—

1. The library must enable the student to use books as tools. He must understand card catalogs and indices, and be able speedily to find topics in books of reference.

2. The library must help him to know good books, to love them, and to acquire the habit of reading them.

The recent growth of libraries has profoundly modified the modes of instruction in vogue a generation ago. At that date the textbook method prevailed in the elementary and secondary schools. The pupil was assigned a set portion of the text to be mastered. In some schools the practice of rote-learning existed, and the pupil was expected to reproduce the exact words of the text with the same fidelity as if he were reciting a chapter of the Bible. The teacher was little more than a drill master. In better schools the instructor would question as to the meaning of the paragraphs studied to relate them to the child's previous knowledge and would frequently supplement the next with pertinent illustrations or additional facts drawn from his own store of knowledge. In the colleges the instruction was chiefly by lectures, a method that originated before the art of printing, and was indeed a proper and necessary method when books were scarce and the teacher encompassed within himself all the learning of the world relating to his subject. With industrious and faithful professors the lectures were supplemented by oral quizzes and explanations, and an occasional formal written examination.

The textbook method still prevails in the elementary school, but the library has come to supplement and enlarge. With older pupils in the high school and college the lecture or textbook now serves chiefly to open up the subject, to show its organization, to disclose its vistas. Library readings more and more are expected to furnish the bulk of the detail that gives significance, reach, and application to the facts or principles of the textbook or introductory lecture.

A teacher today cannot properly organize his courses of instruction unless he knows the resources of the library and the mode of using these as an auxiliary in his work. Hence the study of method for which the normal school is supposed peculiarly to stand must include the use of the library as an educational instrument. No teacher is qualified for the modern school unless he knows where to look, for what to look, and how to look, in getting information.

The normal student, like every other student, to use the reference library efficiently, must know it not as a mere collection of books, but as an organization. He should be given access to the shelves, he needs to know the system of cataloging, and the location of the various classes of books, periodicals, maps, pictures, and other library material.

He needs acquaintance with the standard reference books—encyclopedias, dictionaries, gazetteers, atlases, almanacs, guidebooks, etc. The student should be familiar with the special merits of each, the various appendices and supplements; he should know that it is sometimes better to consult an old edition of a book of reference. He needs also acquaintance with the special handbooks like Harper's *Book of Facts* and Brewer's *Reader's Handbook*.

He needs knowledge of the various indices of periodical literature and of government publications.

He needs to know the general make-up of a book, and how to use preface, tables of contents, and running headlines to locate his special topics.

He needs to know how to study the references when found, how to take notes intelligently.

This body of knowledge cannot be acquired and retained by the pupil from listening to formal lectures of the librarian. It must come thru the daily use of the reference library.

It can be acquired only thru the co-operation of teachers and librarian. Many of the students come to the institution wholly unfamiliar with libraries. Some know little of books beyond their textbooks. They have never heard of classification numbers. How can they understand them, or recognize bound magazines when their widest experience with periodicals includes only the unbound copies of Wallace's *American Farmer* and the *Ladies' Home Journal?* A welcome from the librarian, and a personally conducted trip thru the library as she explains the larger features of the organization and arrangement, will banish the sense of strangeness. But not all this needed information can be acquired thru trips and talks. It must come thru the daily use of the reference library. Unless the instructors in the normal school are familiar with the library, its contents and organization, unless they have learned to use the library, and provide for its systematic use by their pupils, the normal-school student is not likely to become skilled in the use of the library. Normal teachers are supposed to be among the best of the profession; yet I suspect every librarian can make a long list of the sins of such teachers—sins both of omission and commission. It is not uncommon for teachers to send students to the library with a topic stated in such vague and uncertain terms that neither students nor librarian can guess just what is wanted; to send a class of forty to consult a book of which the library contains but a single copy, and that possibly drawn out by the teacher himself; to refer a class to a single monograph, when there are possibly half-a-dozen other good ones on the same topic —that the teacher will himself refer to later.

A teacher experienced in the use of the library will rarely send a whole class of beginners to the library to investigate a topic without himself furnishing a reference sheet for their use, or giving the librarian ample notice.

Teachers may feel that they are losing valuable time when they stop to give formal instruction in the use of the library in their subject. Yet we may doubt whether any time is better employed. If a student makes out a bibliography by book, chapter, and page, of the library resources touching a particular topic, or if a class prepares for its successors a card catalog of all articles and chapters that they have found especially helpful, along with the ordinary information gained has come the appreciation of a new method of study.

Nearly all young students waste time in the library thru not knowing how to study the reference material when found. It is not proposed to set up the claim that there is only one right method of studying. We are told that there are several excellent methods of making good coffee, and we wonder how it happens that our country hotels find so many other ways of making execrably poor coffee. So there are many good ways of studying; the personal element enters in. Yet it is a fact that our students have found other and very poor ways—it makes no difference from what state, section, or school they happen to come.

The book is scarcely open before they begin to write. Copying before they have read the article thru, they write down a great many unnecessary words, if indeed there is any necessity for writing down anything at all. What they are really doing is taking all this time to copy the information, and then studying it afterward from a somewhat illegible manuscript, instead of studying from the printed page and be done with it.

A way of using still more time is to take this penciled copy home and write it with ink in a permanent notebook. I found a girl following this method, her reference-book to begin with being little more extensive than her textbook. She said she had wondered why it took her so long to get that lesson.

We find many students taking notes in this fashion in the preparation of a class paper. They copy whole paragraphs intending, they say, "to boil them down" in the solitude of their own rooms. We have tasted the decoction. Instead of mastering the article and noting down the bare points, later to be amplified and discussed in the student's own language, we find this other laborious procedure in which the pupil rarely escapes from the phraseology of the book. The idea of studying seems to be thru the slow medium of pencil and paper instead of the more rapid but more intense way of thinking and comprehending.

I do not deny the value of the motor activity involved in the use of the notebook—the importance of writing unfamiliar names and indicating their pronunciation and occasionally copying sentences or whole passages of such beauty, strength, or significance that they are worth committing to memory. A well-written notebook from a library study is second only to the notebook of a laboratory course, or of a series of excursions.

I think you will agree with me that to enable students properly to know and use the library merely as a library of reference needs the joint effort of librarian and teacher. The librarians in our normal schools, I suspect, are doing their part better than the teachers. Too many of us date from a period when libraries were few, scant, unorganized, and little used. The trained librarian had not appeared. Library science was unheard of. Furthermore the education we received was largely formal. Our language teachers cared more for our knowledge of inflections and syntax than for our appreciation of Greek or Roman literature and life. To a student of mathematics in those days the library could contribute little. Hence the methods by which we were taught and our own early practice did not reckon with the library as a large factor in instruction. The growth of the library has been parallel to a change in the aim and method of our schools. The emphasis has gradually shifted from form to content. The change of emphasis required a change in the mode of instruction, a change that we, from the mere inertia of habit, are slow to make even when we recognize the inadequacy of our old ideals. The day has come when in selecting a teacher for a normal-school faculty we must ask these questions: Is the candidate a library student? Has he received his own training under teachers who had made the systematic use of the library a feature of their instruction? We must ask this question because we know that the example and practice of our teachers is a larger factor in developing the library habit than the most learned, skillful, and patient of librarians.

This daily recognition of the function of the library by the normal teachers will possibly be the chief agency in developing right practice in normal students when they begin to teach; for the fact remains that in our early teaching we proceed by imitation rather than by precept or reason. We depend far more for guidance upon the example of our own teachers, than upon the educational doctrine that they have inculcated.

The other important agency is the practice-teaching of the training-school. In a good normal-school library every term's work in the practice school is organized around the available material in the library. The student-teacher is assigned to his class early enough to gain some preliminary acquaintance with this material. He thus inherits a part of the experience gained by his predecessors. Thru his own independent reading he may be able to make worthy additions to the reference sheets or card catalog, dealing with his term's work. At all events no student-teacher should be passed unless he shows as fair a degree of skill in the use of the library as he shows in his questioning, his lesson-planning, his assignments, his use of apparatus, or other details of instruction.

Besides this knowledge of how to use a library and the habit of using it both as a student and a teacher, the normal student needs a knowledge of titles, of the names of the leading poets, novelists, essayists, orators, historians, and scientific writers of the world; he needs to know something of their spirit, their style, their purpose, their contribution to civilization, and the titles of their leading works. A generation ago we studied Shaw's *History of English Literature;* we learned the names of hundreds of books that we never saw. It was a good deal like studying a book catalog, or undertaking to satisfy one's hunger by perusing the menu card. The schools have rebelled against this empty study. We are now studying literature itself instead of books about literature. Yet there is a place for that older knowledge. We learn names of countries and cities, their location, industries, products, institutions, objects of interest, and other characteristics, even if we do not expect to visit these countries and cities. Similarly I may know of the *Origin of Species* that it was written by Charles Darwin and published in 1859; that it was probably the most influential book of the nineteenth century because it led to the general acceptance of the doctrine of descent and organic evolution which has so profoundly modified our thinking in every field of knowledge; that it deals especially with natural selection as the chief factor of organic evolution, that its leading chapters deal with the "Variation of Plants" and "Animals under Domestication," with "Variation under Nature," with the "Struggle for Existence Due to Overproduction," with the "Survival of the Fittest," with the "Laws of Variation," with "Geological and Geographical Distribution," and with the "Difficulties of the Theory." This sort of knowledge of the book is possessed by hundreds who have never read the book thru. It may be called the librarian's knowledge of the book, for some people say that a librarian never reads a book—barring novels. But it is a form of knowledge of high value to one who may need some day to turn to this information or direct others to it. It is a sort of literary map that we all need acquaintance with if we are to find our way in the world of thought.

A special field for the teacher is the knowledge of juvenile books. Some he may know and love at first hand. If he is to read to his class the chapter that will make the children hungry for it all—and read it in right fashion—he must himself have assimilated the book. But aside from the few that the normal student can thus study is a much larger list of trustworthy books that he can recommend to parents or himself select for his pupils. In my own personal experience as a bookbuyer, I have found some difficulty in getting reliable lists. I have bought books for the school library that the children would not read. Since, in my older days, I have seen the methods used by authors and publishers to get their books upon reading-circle lists, I do not wonder that some chaff gets into the cleanest measure of wheat. The market abounds in picturebooks poor in line and color, in fairy stories without the good old flavor, in books of fiction that teach children to despise their elders, in collections of verse that are merely cheap sentiment in rhyme, in nature books weakened by personification until they are neither good, true, nor beautiful. The normal schools should co-operate in a patient and thoro experimental investigation of children's books to be conducted without fear or favor.

In addition to these lines of knowledge relating to the use and choice of books, every normal student should go forth equipped with some of the special knowledge of the librarian. As a teacher he will find himself in one of the three types of schools: either with a public library to be worked with, or with a school library to be organized and used, or yet with no library in existence—one to be bought.

In any case he needs more or less knowledge of books from the librarian's point of view: how to select, order, accession, classify, catalog, label, and repair them; a knowledge of paper, type, and bindings; of pictures, and periodicals; of charging systems, and library laws.

If the teacher is to work with a public library, he needs to select books to be taken to his school, if this practice be permitted; he should be able to find his way thru the public library, to use its catalog, to read its labels, to understand and explain its laws and charging system. If a school library is to be organized and managed, the knowledge needed will justify a formal course in the normal school. Besides the points previously mentioned which will require more than a dozen lessons are many others of high value in developing a school library: government and state publications and other inexpensive sources of library material; the mounting, labeling, and filing of pictures, the care of pamphlets and newspaper clippings, and many minor points of library economy familiar to all librarians. Without this knowledge applied to its management, the school library remains a mere collection of books, falling far short of its highest usefulness.

If the considerations set forth in this paper be true, it must follow that all teachers be thoroly instructed in the use of the school library, and that all except those destined to work in our larger cities in co-operation with public libraries under trained librarians need a knowledge of library organization and administration.

Probably the class excepted would use the library more frequently and more intelligently because of this course in library economy.

DISCUSSION

Milton Frye, instructor in English, McKinley High School, St. Louis, Mo.—I must express my hearty approval of what President Felmley has said concerning the ability of the normal student, or prospective teacher, to dispose of the mechanical details connected with the modern school library. The well-equipped teacher must be able to get the "right book to the right pupil at the right time."

However, I wish to emphasize especially one point that was referred to at least twice in the paper. The normal student must, in addition to developing executive expertness, receive a positive inspiration. It has been urged that education is not so much the acquisition of knowledge nor the acquisition of power as it is the cultivation of an attitude. If this is true anywhere under the sun, it is true in the preparation of the prospective teacher.

Most of us earnestly hope that the perfunctory teacher may soon become prehistoric. However distant the realization of that hope may be, one thing, at least, is certain. The *real* teacher, today, is very slow about confessing, even to himself, that he uses a library merely because he is unfortunate enough to possess one and, therefore, must meet the situation by using it. Nor does he constantly exclaim at the addition of burdens to the already over-worked teacher. On the contrary, he welcomes the library as an opportunity. It means that his attempts at the guidance of young lives may be made tenfold more effective.

To prepare normal students best to receive this positive inspiration it is absolutely necessary to remove some of the prejudices that have become the bugbear of honest and progressive educators. Let me mention a few of the misconceptions dangerous to the prospective teacher. First of all is the notion of the all-sufficiency of the teacher in the schoolroom. The teacher who insists that all the ideas acquired by his pupils bear the stamp of his own personality needs new light upon his own limitations and the possibilities of young minds. But at this point some modest self-effacing brother mildly protests that he is not guilty of the sin of slavery to his own all-sufficiency. He works along the lines laid down by the best authorities. He is constantly on the lookout for the up-to-date in textbooks. And all the time his servitude may be none the less serious, for it is merely uncalculating slavery to the text.

Then, too, the prospective teacher deserves relief from the fetishism which seems to surround the study of grammar in the grades. A startling amount of the time spent upon the study of analytical grammar is wasted. Pupils come into the high school and are able to read with appreciation, not because they have studied grammar. They are able to speak and write good English, not because of their experience in "parsing" and "analyzing," but in spite of it. The difficulty with the study of grammar in the grades is that the excessive abstract analysis required is beyond the interest and the comprehension of the ordinary pupil.

We are guilty of this fondness for analysis in the high school as well. A play from Shakespeare is studied. Eighteen weeks are spent upon it. Every error in English, every anachronism is noted. Every allusion classical, mythological, historical, or literary is worn threadbare. And when the process is completed we tell the pupils that is Shakespeare, whereupon a perfectly normal boy somewhere in the rear of the room ventures to remark: "Well, Diamond Dick fer me."

The interest of the normal student, then, demands that these misconceptions be removed or at least modified. Now let us try to be specific as to what this positive inspiration includes. Nothing more nor less than a great desire to teach by understanding and sympathizing with each pupil. The prospective teacher will expect to know each pupil so well that he will understand just what that pupil needs. The relation between the pupils and the teacher will be so cordial that the teacher will always respect the likes and dislikes of each pupil. In turn the pupils will respond most heartily to the suggestions of the teacher. As the pupil prepares his lesson the teacher will guide him to just the material he needs. In all his reading the pupil will have the careful supervision of the teacher, but the teacher will never do the pupil's work for him. In the end the pupil will acquire a love of books that will remain with him to the last of his days. His attitude will be established. All this is merely a part of the vision of the teacher with the positive inspiration.

Another of the functions frequently set for education is the preparation of the pupil, or student, to interpret the phenomena around him—phenomena of whatever character: scientific, historical, literary, or social. Too often we are satisfied merely to tell a pupil how to interpret and fail utterly to *show* him how to interpret. Just here we might very profitably receive a suggestion from our co-workers, the librarians. Some one has gone so far as to assert that, in organizing children's classes and arranging the story hour, librarians have been usurping the function of the public-school teachers. Whose fault is it? While we have been thrusting upon unwilling pupils the husks of knowledge *ad nauseam* our infinitely wiser friends have been supplying the substance that vitalizes and energizes. Too often we have forced children to neglect and despise books while our library workers have been teaching the boys and girls to love them. The secret of their success lies in the art of adaptation.

MAUD A. GOODFELLOW, librarian and instructor in library economy, State Normal School, Fitchburg, Mass.—It seems to me that the object of library instruction in the normal school is twofold, and that what we give to the normal students in library instruction should be in reference to these two objective points: (1) The value of such work to the normal-school student as an individual and more particularly as a teacher; (2) The value of such work to the children she is to teach. I emphasize the indirect value of such work to the children for this is an age when the needs of children are receiving conscientious attention.

We began our work in library instruction with the normal-school students at Fitchburg, Mass., two years ago. In the first few lessons the students are made acquainted with the resources of the normal-school library by being given a list of books, then a list of book numbers—they to find the books, writing out a short description of each—the description being such as to *identify* the book in *its most important uses.* The numbers given are those of books which it is desirable that the student should know and which they will find helpful in their work as teachers.

A few lessons are spent on classification and cataloging—how to make out a card catalog, etc. When we consider that almost all libraries use the Dewey system of classifying and numbering books—and that nearly all libraries have card catalogs—it is certainly time well spent to give our future teachers an idea of classification and cataloging—to say nothing of the knowledge of books (and especially of how to get at the scope and content of a book) that such work in classifying and cataloging will give them.

Two lessons are given on trade bibliography, the purchasing of books.

Several lessons are given on the use of reference books, such as the dictionaries, encyclopedias, periodical indices, biographical reference books, Statesman's *Year Book*, Lippincott's *Geographical Gazetteer*, *Library of the World's Best Literature*, and other books. Sometimes in this work questions are given, involving the use of a certain book in the library—the students to *find* (without consultation with one another) the book in which the answers may be found—and the book is then discussed in class. Sometimes the practice work follows the talk about the book.

Two lessons are given on the care of books, the mending of books, and book-binding—

each student having practice-work in mending books, as well as taking care of the books in the normal-school library.

The course in library instruction at the Fitchburg Normal School also includes lessons on each of the following: the make-up of a book, the purpose of its various parts; making of a bibliography; history of books and of libraries; library-extension work, especially work done with children. Considerable time is spent in discussing the work done with children in the schools in different places in the line of library instruction, and how different librarians coöperate with the teachers in interesting children in the library and in books. The students in our normal school come from many different cities and towns and we are thus able to get accounts of the work done by a number of different libraries.

The course also includes a lesson on the collecting, mounting, and classifying of pictures and clippings. The students bring such material as they may have and are shown how the material may be best filed away so as to be easily accessible at any moment when desired for use.

In closing I will say that I believe library instruction should be given to the children in our elementary schools and to the students in our normal schools because of its practical application. Children, who know how much information a plain unabridged dictionary offers and how to get this information in the easiest way, will consult the dictionary more frequently, after leaving school, than they otherwise would. Children, who know how to use a book and the purpose of its various parts, who have had instruction in the method of getting facts from books, who have had practice in finding out about things in more than one book, will naturally use books as tools in after life, when they wish to find out about anything. Children, who have formed the library habit and who take out books and magazines to read while in school, will have formed a habit that will relieve the monotony of their daily work, and this habit will also tend to their educational and cultural growth.

Edward Everett Hale says "The difference between an educated person and one not educated is that the first knows how to find what he wants and the other does not."

I believe that the objects of a course in library instruction in a normal school should be to learn *which* book to use, and *how* and *when* to use it; to discover the main trails and guide posts in learning to use books and libraries; to discover how to teach children to care for books, to use books as tools, and to form the habit of reading books; and always to correlate this library work with the course of study.

ROUND TABLE

TOPIC: THE METHODS OF ADMINISTERING PUBLIC LIBRARIES FOR THE BENEFIT OF PUBLIC SCHOOLS

JAMES H. CANFIELD, LIBRARIAN, COLUMBIA UNIVERSITY, NEW YORK CITY

[*Stenographic Report*]

The United States stands today as the foremost exponent of western civilization—whether that be considered from the standpoint of civic life or social life: better, perhaps, recognizing civic life as simply the administrative side of social life. This western civilization we believe to be a true and lasting civilization because its fundamental characteristic seems scientific, philosophic, sane, and enduring. That is, that the truest and most lasting civilization is the state or condition of living together in mutual helpfulness.

As a people we have always recognized this fundamental principle of coöperation and participation in all civic and social affairs. With us, this statement is no empty sound. More or less consciously, more or less completely from the signing of the contract in the little cabin of the "Mayflower" down to the last presidential convention, theoretically always and practically nearly always, we have believed that our strength lies in the intelligent and active coöperation and participation of each individual citizen in all public affairs and in the development of each individual citizen to the utmost possible, in order that this participation and coöperation may be more efficient.

Hardly knowing just what the future of the movement was to be, our fore-fathers established the public school. Yet it was as late as 1835 before the true and modern form of this institution began to appear. From that day on, however, it has secured an increasing hold upon the interest, the confidence, and the support of the entire American people—not always a like devotion in all parts of the country, but a very general recognition of the need of education of the entire public if American democracy was to abide.

Largely because of an early acceptance of the fundamental principles just referred to, and because of the development of the public school and its extraordinary efficiency in the uplift of the individual, we have come into a century which has power as its distinctive hall-mark. Just as we speak of the Golden Age, the Bronze Age, the Age of Steam, and thus variously describe different periods in the history of mankind—in this twentieth century, and in this country, we have an Age of Power. It is power that is large, strenuous, optimistic, and free: power manifesting itself as never before manifested, in organization: and organization developed as never before, because of the extraordinary development of the individual and of all individuals.

But we have learned that power is only safe, in the individual citizen, in industrial organization, or in civic life, when the individual or the community exercising power has itself under constant and intelligent self-control. Otherwise, power is simply a menace—dangerous to the individual exercising it, dangerous to the community in which it is exercised, dangerous to the community upon which it is exercised.

Side by side with this development of the individual, this marvelous increase of power, has come a very general but not yet sufficient recognition of mutual interdependence—of the need of mutual helpfulness. Send a half-dozen bright college boys to the largest blackboard with instructions to note in the briefest possible way, each by a single word perhaps, the callings or industries or trades upon which even a single morning meal depends—and you will have the board crowded full long before the next meal is ready. Undertake when you are on a railway journey to recall all those upon whom the safety and convenience of that journey depend, directly and indirectly—not forgetting to include the ore in the mines, the work of grading and track-laying, etc.—and you will find yourself at your journey's end before the list is complete, and you will have had a busy day at that. Thoughtfully and intelligently expand this little bit of research until it covers the life of a day, of the waking hours of a day, and if you are not humble and possessed by a sense of dependence on both God and man long before you have reached the end of your investigation, then you need an old-time camp-meeting conversion. It is absolutely impossible for the strongest and most powerful to escape from this dependence, even tho he escape from a sense of it—for a time. Leaders may only hope for true and lasting success when they have intelligent—and because intelligent—faithful, followers. Only intelligent followers can really be efficient followers. Both leaders and followers need to keep this constantly in mind.

This interdependence, resting back as it must upon a reasonably complete appreciation of the work of each by each, of the necessity of each to each, creates a constant demand for intelligence, and for very large intelligence. It is particularly necessary that men should be thus intelligent, in order that they may satisfy their desires—and by giving to normal desire normal and legitimate satisfaction, increase desire and advance and refine it, thus stimulating the individual to still greater and more efficient effort. Men need this intelligence in order to appreciate the value or lack of value of the tasks and undertakings of others. Each day of the three hundred and sixty-five of each year simply places upon each and every unit in American society a constantly increasing demand for constantly increasing knowledge. More than ever before in the history of this country do we need to be canny—in the original sense of that word. In a very true sense, tho not perhaps in the old camp-meeting sense, we all need to get the power.

The common schools of the country, as we all know, have already accomplished much along the lines of individual development indicated. But at best, the common schools hold the American boy or the American girl only a trifle more than five school years. This is far too narrow a portal through which to enter upon successful citizenship.

Just as we discover this, and wonder how the work of the school may be enlarged and supplemented, we find the American public library right at our hand, ready for the task. Its constant mission, its highest privilege, is to complete what the school has begun: to furnish education, information, inspiration, and recreation to the entire community thru all the years of adult life. Neither to teachers on the one hand, nor to librarians on the other, does this statement need enlargement. These two classes of citizens, at least, have come to understand that we must accept the public library as an integral part of the great scheme of public and free education.

We are here this morning, both as teachers and librarians, to discuss quite informally the possibilities of the ministration of the public library to the public school—in order that when the child leaves the public school he may already know the value of the public library, and may feel assured of its friendly service through all his later life.

DISCUSSION

Edwin White Gaillard, Circulation Department, New York Public Library.—If librarians hope ever to have real coöperation with schools they first must be able to meet reasonable demands from schools. They must have suitable books for both teachers and children, and the rules of the library must not only enable but encourage the use of these books. The library must see that every teacher and pupil in the schools, public, private, corporate, parochial, trade, art, and so on, understands the attitude of the library in the matter.

The New York Public Library is attempting to meet these requirements by letting teachers have as many books as they need "without limit as to number," as say the rules, the books to be retained for six months, if desired; by very liberal purchases of books for teachers when the supply of the library is not equal to the demand; by the purchase of books to the extent of $10,000 for teachers' and pupils' use since January, 1908; by having an assistant from each branch library make frequent visits to the schools near each branch; by maintaining in every public school and in many other schools, colleges, and universities regular bulletin boards for the posting of notices from the library, of interest to teachers and pupils; by an attempt to meet the reference demand from the pupils of elementary schools by installing as rapidly as possible such reference collections as will enable a boy or girl always to find in the library, never "out," just the book needed to help in the work of the schools. This reference collection is designed also to be a reference library for children, even apart from their school needs, containing books not only on the usual school subjects, but also on all manner of interests of boys and girls. The collection numbers about a thousand volumes and has this year been placed, in part, in nine of the branch libraries. In order that all pupils may know of this work, a large placard has been printed and posted in every classroom of the five upper grades in the elementary schools. The collection also includes a number of books for high-school students. When this collection is complete in all branches, when the library is able to respond to the real demands of pupils and teachers, and not to a carefully specified demand—specified by the library, that is to say—then we may hope to have real use by the schools.

H. N. Parsons, head of the School Department, Buffalo Public Library.—The chief work to be emphasized in the coöperative work between the Buffalo Public Library and the Buffalo public schools is that it clearly is coöperative: the schools undertaking the distribution of library books in order to broaden and strengthen the formal course of study; the library carrying the whole administrative expenses of selection, purchase, arrangement, and distribution for the sake of the undoubted economic saving in serving so large a body of citizens in so compact a manner, but still further for the sake of awakening in all children love for good books and, especially, to awake it in those who must, from force of circumstances, be denied a long period of formal education in youth, and to teach them that by the use of the resources of the public library they may continue that education during their whole lives.

On account of insufficient funds the library is unable to undertake the administration of school libraries thruout the city. Thirty-nine out of the sixty-two schools are provided for by the library and the pro rata amount of money for these schools raised by city and state for miscellaneous books in the schools is turned over to the library. This fund, however, scarcely suffices to buy the necessary reference books for the use of teachers, and the public library fund must be used to purchase, keep intact, and increase the 35,000 volumes used in classroom libraries.

The selection and purchase of books is made by the library, and all the skill and experience of the specialists on its staff are drawn upon for this purpose, but suggestions and information from the school authorities, whether superintendents or teachers, are sought and welcomed. All discoverable first-rate books which broaden the formal work of the school are used, but a large proportion of the best children's books in general literature is added.

The 35,000 volumes are divided into 732 small libraries and these are sent to the grade rooms in the schools at the beginning of the year. They are changed once during the school year, in February.

The schools served by the library are chosen by the superintendent, and are in general the schools in outlying districts and those having the largest numbers of children of foreign parentage.

The teachers make the very simple records of the books as they go into the children's hands, but the library's school department makes the count and compilation of all statistics.

Esther Straus, head of the Children's Department, Cincinnati Public Library.—The Public Library of Cincinnati coöperates with the schools in the following ways: Classroom libraries are distributed, thru which it is aimed to supply the child with supplementary "culture reading" and not supplementary textbooks. No more than three copies of one book are included in a class-room library. Teachers are granted special cards upon which they may draw six books other than fiction for their personal use. Colored photographs, mounted prints, stereoscope and stereopticon pictures are also loaned. For the teachers following the courses of the Ohio Teachers' Reading Circle, sets containing six copies of a book are loaned, these sets circulating among the different local reading-circles.

The principals' association and many teachers' clubs hold their meetings in our clubrooms and several of the extension courses of the University of Cincinnati are given in our auditoriums.

Some of the public schools have bulletin boards on which the library posts the weekly broadsides and other library news and our auditoriums are frequently used by teachers for illustrated geography, nature and history lessons.

We visit the schools for registration and give talks on the library and its use to the upper grades.

Most of the bulletins used in our children's rooms are made by the art department of one of the high schools, the head of the art department of this school having organized a class in original designing which is based upon the making of bulletins for the library.

HOW TO MAKE THE LIBRARY MORE SERVICEABLE TO STUDENTS OF SCHOOL AGE FROM THE SUPERINTENDENT'S VIEW-POINT

LLOYD E. WOLFE, SUPERINTENDENT OF SCHOOLS, SAN ANTONIO, TEXAS

Not many decades ago the opinion prevailed almost universally that it was the function of the school to teach pupils how to read, while it was the function of a second institution, the library, working independently of the school, to afford these pupils, especially after the completion of their school course, an opportunity to read books dealing in detail with all phases of race-achievement. During the last few decades, we have been rapidly breaking away from this idea, both in theory and practice, thru the use of supplementary books, school libraries, public-library lists put into the hands of the pupils, branch libraries, and books especially suited to pupils sent out from the library to all the schools.

This last—the sending out of suitable books to all the schools—marks the climax of school serviceability on the part of the library. These books can be made much more serviceable by indicating by pages their relation to the various schoolroom topics, and to pupils of different types or temperaments. As far as I have been able to learn, comparatively little has been done to this last end. Joint local committees from the libraries and schools could do considerable in this field; a joint committee of the National Library Association and the National Education Association, much more. While great good would result from the joint work of a committee from these two great associations or from a persistent and well-organized effort on the part of either association, the work would be handicapped: (1) because it is impossible to find stimulating, scholarly, pedagogic books bearing upon all the principal schoolroom topics and suited to the grades; (2) because teachers as a class are not well read in the best of such books now on the market; (3) because more or less difficulty would be experienced in agreeing upon the vital schoolroom topics.

To the above handicap I wish now to address myself. By general consent, the end of education is social efficiency. If the pupil is to be prepared for a maximum of social efficiency, he must, in addition to observation, experiment, doing, and the various kinds of expression, be brought into vital and stimulating contact, thru books and pictures, with the fundamental lines of race-achievement from primitive beginnings. I say from primitive beginnings, because only in this way can the learner catch the spirit of race-achievement and acquire power for individual achievement. At each step of its progress, the race, under the inspiration of a master, has pictured some form of well-being, and has set about devising means for its realization. The pupil having, thru books and pictures, been brought into vital contact with a multitude of concrete cases of race-achievement—past and present—is likely to possess the motive and power to utilize fully the civilization which he has inherited, and possibly to add to it.

Then the problem would be to prepare inspiring books, suited to the grades, on all great lines of race-achievement, for food, clothing, shelter, fuel, transportation, means for the transmission of intelligence, and last, the subduing of the baser appetites and passions, and the cultivation of loftier desires and aspirations in their stead.

The above scheme would call for books on race-achievement in textiles, dyes, leather, felts, furs, meats, breads, vegetables, fruits, nuts, beverages, condiments, oils, woods, metals, stone, brick, terra cotta, cements, porcelain, fuels, heating and ventilation, lighting, and vessels, land vehicles, mails, telegraphs, telephones, phonographs, sewer systems, water systems, fire departments, police departments, sanitation and hygiene in home and municipality, use of water for navigation power and irrigation, use of steam and electricity for power, bridging of streams, domestication of plants and animals, progress of the race in the protection of person and property and in civic coöperation generally, the use of quantity for business, commercial, industrial, and scientific purposes, etc.

Unless the above-proposed books have spirit, secured thru keeping well-being as a motive in the forefront, and thru the marshaling of facts historically and dramatically, they will not give their readers the increased social efficiency desired; they might result rather in overburdening the memory of the pupil, as well as the course of study. While probably more books have been written upon the above topics during the last two decades than in the dozen decades preceding—some of them excellent, many of them good—still very many of them lack spirit, scholarship, unity, or proportion. Many of them bear unmistakable evidence of hasty preparation and copious clipping from cyclopedias, and from books of travel, biography, history, civil government, and science too difficult for pupils of the grades. The great fault with many of these books is that no one mind has given unity, proportion, and spirit to them. Only organized subject-matter can have spirit. In addition to the above faults in the books, all the fundamental lines of race-achievement are not covered by books suited to the grades.

Permit me to illustrate the spirit that comes from the historical treatment. The race, in search of clothing, makes threads and interlaces them—spins and weaves—with the unaided fingers, later with wheels spinning one thread at a time, and hand looms, and still later—after the middle of the eighteenth century—with complicated machinery, whose blessings the world owes to Hargreaves, Arkwright, Cartwright, Crompton, and Watt. These inventions increase efficiency in this department of industry more than a hundred-fold, so that those employed in this industry in civilized countries turn out a greater product than could be turned out without these inventions, if the entire population devoted itself to this industry. A similar increase of social efficiency obtains in hundreds of other fields of human endeavor. Is it not an inspiration for a pupil vividly to realize that he has multiplied his social efficiency one hundred times by being the heir of all the ages?

Supplementary to tracing the history of an industrial process and of raw material to a finished product, typical examples of local concrete conquest of an environment to well-being should be worked out with sufficient fulness to give motive to the learner to conquer his own environment. Good examples of such local conquest are: New York City's getting the surplus population from Manhattan Island to its suburbs by means of rapid transit; the city (girt with salt water) getting fresh water for its millions of inhabitants; and Salt Lake Valley and Southern California successfully subduing the aridity of those regions.

But all industrial treatment, whether tracing an industrial process historically or raw material to a finished product, goes back to natural resources—heat, water, soil, ore, wind, forest, waterfall. These natural resources lend themselves readily to a vital treatment. Back of the soil are the disintegrating agencies that are making it. Back of the moisture are the clouds that have drunk their fill from distant bodies of water and have been borne inland by winds.

As to the elementary natural science—nature-studies—the foregoing list of topics covers most that is fundamental in man's conquest of the kingdoms of nature to his well-being. And the beauty of this conquest is that it is never-ending. We have been accustomed to point to the domestication of animals and plants as finished conquests; but the creations of Luther Burbank, the discovery of the part the mosquito plays as a disease-carrier, and the rapidly growing knowledge of germs, indicate that the race has only fairly begun its conquest of the plant and animal kingdoms. Primitive and savage man battled with the large animals. Civilized man battles with animals that are infinitely small. We are learning that, while a multitude of lions turned loose might destroy their thousands, the countless army of infinitely small animals destroy their hundreds of thousands.

I have named one great fact in the field of nature—man's conquest of nature to his well being. The other great fact in this field is the animal's and the plant's conquest of their environment, to secure nutrition and the propagation of species. There is a world of interesting and educative reading-material—for the grades—in the inter-relations of animals and their conquest of, and responses to, their environment; the preying of one animal upon another, and therefore, the use of one animal, as the bird, to exterminate others, as injurious insects; the preparation of animals for winter and for spring; the ingenious devices employed to get foods or to escape from an enemy; the use of organs—fin, horn, trunk, gill, wing, web-foot, integument, song—to serve the animal's well-being. The plant world furnishes a like wealth of material in its inter-relations and responses to environment.

History and civil government lend themselves admirably for reading-material in the grades. Stimulating books on the pioneer life of this country and of primitive peoples will be read with interest in the fourth and fifth grades. From six to ten books should be devoted to the history of this country in order to give that detail necessary to inspire and move the pupil. If the pupil's social efficiency is to be greatly increased thru the study of physiology he should read at least a half-dozen books dealing vitally with the bodily functions, hygiene, sanitation, care of the sick, and physical culture in its relation to physiology.

There should be at least a half-dozen books covering the business transactions out of which the arithmetic problems arise. This would not only give motive for the solution of the problems, but would acquaint the pupil with the problems as they will arise in life, together with a knowledge of their life-setting. In literature there is no dearth of classics suited to the pupils of the grades, but not enough of them are read to form a taste for such reading.

I anticipate the criticism that the foregoing historical treatment is too difficult for pupils of the grades; that it will not interest them. The answer to this is that it *does* interest them where given a fair trial, and that a priori such dynamic treatment is much more closely related to the pupil's life interests than is the statics of the ordinary course of study. Besides, such books should not only be copiously illustrated, but resort should be had to story, and to dialogue in which characters represent historical periods, countries, or occupations. There are those who favor ample treatment of present industrial activities, but who oppose the treatment of the industrial past. While I would make ample use of the commercial and industrial life of contemporary peoples low in the scale of civilization and high in that scale, I do not think this can in any way take the place of a knowledge of the triumphal march of the race from ignorance, isolation, poverty, and weakness, to intelligence, coöperation, wealth, and power.

Besides, the pupil is surfeited with the historical in military achievement. Is achievement in the arts of peace of less moment? To a civilized people should there be more inspiration in military heroes than in Elias Howe, Fulton, or Goodyear?

I anticipate the further criticism that the common-school course of study is already overloaded. The answer to this is that while the above scheme would greatly increase the number of pages to be mastered, it would also greatly increase the pupil's motive and interest, so that a half-dozen pages of concrete, well-organized detail would be as easily mastered as one page of condensed textbook matter.

It goes without saying that the preparation and use of the above books will encounter obstacles and difficulties; but over against these must be set a condition of affairs not creditable to a century that is the heir of all the past; namely, expenditure for libraries and public schools unprecedented in any former age, both the library and the school professedly instituted for the purpose of increasing social efficiency; a general recognition that a liberal use of the printed page—not in homeopathic doses—a page or two at a lesson—is one of the chief means by which the adult is expected to increase his social efficiency; and yet reading, in school, dry condensed matter that tends strongly to create a distaste for the printed page; and frequently reading, out of school, either very little or much that inspires hopes, aspirations, and sensations that either cannot, or should not, be realized. Comparatively few who have completed a high-school course, during after-life, take pleasure in reading books of travel, history, biography, natural science, industrial achievement, or English classics.

On account of our failure to give the pupil a natural course of reading during his school life, he fails to get an idea of the true function of reading. He comes to look upon even the hasty, careless reading of a book as an end within itself, instead of a means to bring him into vital contact with the fundamental lines of race-achievement, and this latter as a means to the supreme end of social efficiency. To this lack of a systematic course in reading during school life is due, in a large measure, the reading dissipation of those who are in constant quest of the latest book, and who fly to each new book as tho it contained a mine of precious ore never before brought to light. A good course in reading ought to teach the pupil that the fundamental and essential facts in the various fields of human achievement and thought are limited in number. Even in literature, writers have shown how the same situations have been worked over and over again from Aeschylus to Shakespeare. Those who dissipate in reading, who read for a new and intoxicating sensation, should be brought to realize that only such sensations and sentiments as inspire one to greater social efficiency are really worthy of a refined and cultured person.

Then, under the above scheme, the pupils would read intelligently from forty to fifty pages a day, say an average of twenty books of four hundred pages each a year, in Grades IV to VIII inclusive—one hundred books during the five years; also, a large number of primary books in Grades I to III—books full of illustrations relating the child to race-conquest.

One or two hundred such books as this paper contemplates, supplied either by the library or by the school, or by both, supplementary to the present schoolbook course would result in incalculable good. But in the evolution of human progress the time ought to come when these books would supersede the present textbook course.

The above discussion has been confined to the eight grades below the high school. With certain modifications I believe the discussion is applicable to the high school. I believe the high-school graduate, and especially the pupil who drops out before graduation, would possess much greater power if the course in literature, history, civics, geography, and mathematics consisted of several times as much reading-matter as at present, and in the natural sciences, bookkeeping, domestic science, domestic art, and manual training for boys consisted of, not only a much larger body of reading, but of much more abundant concrete practice.

HOW TO MAKE THE LIBRARY MORE SERVICEABLE TO STUDENTS OF SCHOOL AGE—FROM THE LIBRARY WORKER'S VIEW-POINT

EFFIE L. POWER, INSTRUCTOR IN LIBRARY USE AND CHILDREN'S LITERATURE, CLEVELAND NORMAL SCHOOL

Habits of speech indicate habits of thought. Since we speak of the teacher's view-point and the librarian's view-point we must be conscious of a difference in perspective. This does not mean a deviation in ideals or a misconception of each other's work. The ultimate aim of school and library is the same: the full, rounded development of individual character. Toward this end a body of scientific method has been evolved for each body. The library is no longer considered as a mere adjunct of the school, altho it supplements and complements the school at every turn, but as operating in its own educational field. School and library hold one educational ideal but we have the teacher's viewpoint and the librarian's viewpoint since we can catch and fix the ever-changing rays of color, coming from the light of individual experience in each field. The stained-glass window appears in its true form to those without but with what difference in radiancy of detail to the one within. With this thought in mind, I will discuss the means of coöperation which seem to me to be most helpful to children in the elementary schools and students in normal schools who are preparing to teach in the grades. What I shall say is from my particular observation and experience and is of value to the extent that it is impersonal.

Let us first sum up briefly the lines of work already in operation. All libraries have made some provision for student reference work within the library; a table, a corner, or a room where he may have access to books of information which supplement classwork in school. The earliest coöperation took this form and all other has been developed from it. Now most libraries have a separate room for the children and a clubroom where teachers and pupils may meet together. These rooms are supplied with well-chosen collections of reference books and books of literature, arranged and cataloged with a view to school needs. Thus provision is made for class reference work, individual reference work, and also for quiet reflective reading, personal talks about books and writers, readings and story-telling. Small collections called "classroom libraries" are sent into the schoolrooms to be administered by the teachers. General school libraries in charge of a library worker are put into school buildings. Lists, bulletins, and pictures are prepared for teachers and students. Some instruction in school methods is given in the library training-schools. Instruction in the use of a library and the use of reference books is given in colleges, normal, secondary and elementary schools. This is supplemented in a few normal schools by instruction in children's literature and in the elementary grades by story-telling. In a few states librarians are giving instruction at teachers' institutes. All this work is planned and carried on according to local needs by teachers and librarians, but the library has taken the initiative in most cases.

Studying these lines of operation we see that they extend in three directions: toward class use of books of information, toward individual use of books of literature, toward self-help in all library use.

CLASS USE OF BOOKS OF INFORMATION

Methods of reference use have been fairly well developed and we are generally agreed in regard to selection of material, but we are not of one mind in regard to the relation of such use to library use in general. The children's room should not be planned for student use only, since it should meet the needs of the child as a child, as well as of the child as a student. Here the children should be taught to use a few standard reference books selected with a view to giving them a basis for a comparative study of the larger collection in the main reference room. The children's room must take the place of the private home library to many, and therefore should give ample opportunity to seek and find the literature of the emotions. Reference books may be prescribed; literature is for individual selection and, because of this, the child may be advanced to student work in the main reference room before he is ready to be turned loose in the adult circulating department. We choose books of information very much as we choose the cabbage—for soundness, weight, and form. We choose fiction and books of pure literature as we choose the strawberry—for flavor. How can we detect this flavor if we may not taste, or choose, if we may not compare? This freedom must be granted the children if they are to develop any real feeling and critical taste for literature, and there is no attending danger if the collection of books is well balanced, the librarian a wise, gentle guide, and the atmosphere of the room such as to promote individual expression.

The clubrooms within the library provide a place for formal instruction and practically put the whole resources of the library at the service of the teachers in the nearby schools. Rare and beautifully illustrated books, pictures, and museum specimens may here be used to extend regular classwork, and the use of these rooms by teachers and pupils should not only be allowed but encouraged by superintendents.

Library lists for teachers' use with children should include a good many titles closely classified as to subject but not closely graded. The notes should be first descriptive and then critical, clear, definite, and simple rather than literary. Book specialists are apt to make notes which presuppose a knowledge of the book and the class to which it belongs. Most of our large libraries receive all publications for children on approval and the books which are put into the library collections are a very small per cent. of the books actually read by the director of the children's work and her helpers. This wide reading and constant discrimination gives them an outlook which is not possible to busy teachers who are specializing along many lines. It seems to me that the librarians who have this opportunity for comparative study of books should make the complete, annotated list, and that the teacher who comes into close contact with the children and has full knowledge of their immediate needs should make the selected list. Lists to be put into the children's hands should be short, of the best, and annotated from the child's point of view. Complete finding-lists are for mothers, teachers, and librarians and, since they necessarily include many books, for use under supervision.

INDIVIDUAL USE OF BOOKS OF LITERATURE

The clubwork, reading circles, and story hours, carried on by librarians, is the highest development of work with students within the library and cannot fail to make itself felt in the schools to the extent to which it develops feeling, judgment, independent thinking, and freedom of expression. The object of the Cleveland library clubs is to stimulate thoughtful reading among children who are not directed by other means. Since the membership is entirely voluntary, the reading is recreative and follows the interests of the children. The director of children's work says: "They are not study-clubs in the sense of requiring concentrated effort for any length of time. Such clubs would be an infringement upon schoolwork." This work is not new and is being carried on in many libraries but some recent Cleveland experiences will serve to show the club's opportunity with children and its relation to schoolwork. A library worker had met a group of girls from the sixth and seventh grades. They were considering what they should first read together when one of the girls seized upon Eva March Tappan's *In the Days of Queen Elizabeth*, saying, "Oh! may we read this? We are studying English history in school." This book, read together, became the center of a many-sided interest, and during the winter these girls, known among clubs as the Elizabethans, read: *Kenilworth*, *Prince and Pauper*, *Men of Iron*, *Master Skylark*, and *Marshall's Island Story*. Another club prepared a travel-talk on Japan which they gave with stereopticon pictures before two audiences of children, and one club delivered orations by Webster, Clay, Lincoln, Henry, and Sumner.

Thoughtful story-telling within the library has proved a most practical means of directing children's reading along definite lines. Experience in the children's room also reveals the fact that when left to his own volition the little child first reads the stories which have been told and read to him by mother and teacher. It is also true that the child whose ear is not trained to the rhythmic movement of Mother Goose, stories in verse, and other simple, dramatic poetry, never chooses to read poetry for his own pleasure.

Stories may occasionally be told in the classroom by the children's librarian. She knows books and thru special training and experience comes to know children. She represents a source of good books to the children and any story she may tell may form a connecting link to a chain of good books. In selecting suitable material the teacher should not always require the historical, scientific and plainly ethical tale which is a unit of immediate value, and depreciate the imaginative story which leads to the reading of the world's great literature.

To direct the children's home reading and form their literary taste is a part of the teacher's duty; therefore the librarian must never be asked to tell all the stories. As soon as the pupils have the power to read for themselves with any pleasure, it becomes the business of the school to use this power for their richer nurture. The little child enters school with mind alert and sympathies keen. Tho immature he is already an individual who must be helped to intelligent self-direction in the larger life of the outside world. He cannot be molded into manhood; he must grow into such fulness of life as his own nature makes possible. This growth depends upon the ever-changing capacity of his heart and mind and the ever-varying conditions of his environment. It is the chief business of the teacher to supply in attractive form the elements necessary for growth and actual living, and life in literature best meets this need. The child must have vital contact with the actual world, but his actual experiences do not come fast enough to fit him for all emergencies. He needs the experience of others and out of the primitive life of the race have come tales that delight all children, satisfy their present wants, enlarge their vision and stimulate to noble action. The hero is brave and courageous, with forethought; he is loyal to his friends and kind to every living creature; he acts with vigor and decision, outwits his enemies and triumphs over every difficulty because his cause is righteous. All the nobility of purpose of many heroes in real life is concentrated in the soul of this ideal hero and thru him the children get association with a noble company. In this, pure literature equals if not surpasses history. The writer of history is limited in his choice of subject and freedom of action; the creator of pure literature has the whole range of life itself.

The teacher needs to use literature in creating environment because it embodies a wide range of experience and because it presents the ordinary events in life in artistic guise. It is the ideal self which feels and acts in the poet's creation and the growing boy or girl who shrinks from revealing his deepest feelings may enter into this life without any embarrassment, because he is lifted above self-consciousness. He is removed for the time from the range of his immediate experience, but he comes back to it with new sympathy and freedom. Literature is indeed life, life in solution! Shall we consider it merely as a recreation, a diversion, a peg upon which to hang morals?

Following the early conception of the relation of the library to students, the first classroom libraries were sent into the higher grades of the elementary schools. The gradual acceptance of these libraries as a formative influence has changed the point of contact to the lower grades and the point of contact necessarily affects the selection. In these early grades, books are largely used as a means for stimulating language expression and the selection is naturally determined by the children's interests. We find the inexperienced teacher, who has developed very little theory in regard to children's reading but who understands children, intuitively selecting simple poetry, fairy tales, and stories which are the best possible literature for little children because such literature presents subjects the children like to talk about. Beginning with the fourth grade there is a more conscious purpose on the teacher's part of creating new interests which lead to a demand for books of information along many lines. The small collection no longer answers the whole need of the class. There is an immediate need for technical books which must be met and the larger need of books to feed the life-giving spirit tends to become secondary. This condition may be met by placing a general library in or near the school building. Let this collection contain technical books, books in sets, standard literature, and many books for the occasional child. The question now arises as to whether this general library shall be supplemented by classroom libraries in every grade. First of all I would ask the library to provide, and liberally, for the lower grades. As to later book needs, if the teachers have ample opportunity for oral work in literature in the lower grades, and the librarian in charge of the general library has time for personal work in her relation to all the children, there is no great need for classroom libraries beyond the fourth grade.

These school and classroom libraries should be under the supervision of a librarian with teaching experience who is able and ready to assist at teachers' conferences, institutes, mothers' meetings, and wherever children's reading is in question. She can best win recognition of her cause thru the practical presentation of the literature she stands for. When she is invited to come before any company, let her drop her theory in part, select a few points, illustrate fully from available sources and she will be accepted. Her assistants should be as carefully chosen as any workers within the library and this is possible since the school libraries need not be open more than two afternoons a week.

SELF-HELP

The work of teaching the children to use the library should be shared between the librarian and the teacher. In giving this instruction both should remember that there must be a real feeling for books before any interest in the library as a source of books or the catalog as a means to books can be aroused. That such teaching is desirable is wholly accepted in theory but methods are still in the experimental stage. We began with courses in bibliography in the college and have gone on to the source of student life; to the child, and the teacher behind the child. We have come trailing some glory and some dust of preconceived notions. We ask the child to look up unfamiliar words in a dictionary and unknown subjects in an encyclopedia and expect him to show all the keen delight of a bibliophile. If the point of contact be the use of reference books, let a familiar subject be assigned and let the book tell some things already known.

Some definite instruction in the use of a few standard reference books should be given to children, beginning with the fourth grade. In order that it may begin at a point of interest, it should be given to individuals or classes rather than groups and may well be related to schoolwork. The person giving this instruction should follow it with the children until they see some finished product, whether it be to the recitation room to hear "more than the history book tells about the battle of Bull Run" or to the back yard to see a pigeon house. One visit will fairly overwhelm her with confidences as to the result of other researches. "I found out one thing that wasn't in the poem at all. I found what they did with Paul Revere's horse," said a boy with shining eyes. Such is the spirit of live questioning. Books are dead things to the child who is laboriously copying paragraphs on the early life of Henry W. Longfellow, the middle life of Henry W. Longfellow, and the later life of Henry W. Longfellow.

The course in the Cleveland Normal School is planned to help the students to help themselves and, to be consistent, we have no librarian. The students charge and discharge their own books and put them on the shelves. They do the mechanical preparation of new books, write book cards and shelf-list cards, and take an inventory once a year. The cards are not always in best form, but they are clear and the record is accurate. The instruction in library use is given as early as possible and except for a little help now and then each student is her own reference librarian. We do not have all the problems that face the state normal school, as our student body numbers about two hundred and is regular in attendance, but I believe the working principle can be the same under all conditions. Instruction lessens the need of immediate service on the part of the librarian and leads to more independent research on the part of the student. The routine does not run so smoothly when your inspiration is weeks back and rooms away, but in time there comes a consciousness of strength into the student's manner among the books which is worth more than exact detail. I bring this into this discussion to persuade the school librarians to allow the students to do some part of the work even tho it seems at first to be a sacrifice.

DISCUSSION

THE LIBRARY AND THE SCHOOL

HOMER H. SEERLEY, CEDAR FALLS, IOWA

The problem stated.—Public education is best administered when the public library and the public school are a unit in advancing the common interests of the pupils that are being trained for citizenship and serviceableness. Education is not a panacea for all the ills of humanity. Literature, science and mathematics cannot substitute for moral training or for spiritual attitude in a life. Education can be a preparation for larger usefulness, it ought to be a development of ways and means to definite ends, it should be a saving of time in promotion in place and power. It should increase opportunity, develop possibility, enlarge capability and add adjustability to character. The library and the school are educational instrumentalities but they are both means to ends and should never be regarded as ends in themselves. They are not organized, equipped and maintained as exhibits of civilization because they are actual factors in creating and improving civilization and they are promising elements in organized society for the granting of opportunity and of privileges to the ambitious, the energetic and the self-sacrificing.

The need of unity.—There is more or less a lack of coöperation in these great educational forces that is very apparent in large numbers of communities. There is a lack of a thoro appreciation of the standpoint that the school must have on the part of the library and there is an equivalent lack on the part of the school for the undertakings of the library. Both are handicapped by the limitations placed upon them by law, by financial support, by service thus able to be given, and by the low standards of their patrons. Both are doing all they can in their way to solve the same problems and each regards the other as lacking in coöperation and sympathy. Both have placed upon them more work than they can do, both are given more opportunities than they can fully accept, and both are unsatisfactory to promoters because of their not reaching the exalted expectation of the public. There is marked need, therefore, for a better understanding in every community where they both exist because their mission is in reality the same and their object is similar if not identical. Harmony, coöperation, a genuine getting-together, conferring frequently regarding the problems to be jointly solved are absolute essentials if the results so urgently necessary are to be secured.

The largeness of the work.—The requirements proposed always exceed the possibilities of accomplishment. The library has its natural limitations that are produced by the largeness of the population, by the fewness of the volumes possessed by it to meet the needs of this population, by the petty new supply of books that is possible from year to year as compared to the actual need that exists, and by the lack of acquaintance of the librarians with the personal educational needs of the patrons who come for help and opportunity. The school has its limitations in the barrenness of the exactions of the course of study and in the lack of time to get even all this accomplished in the days assigned, in the frequent ignorance of the teachers as regards suitable and desirable children's literature, and the actual impossibility for them to get such knowledge, because of the restrictions that a public-school salary places upon the opportunities and possibilities of these teachers. The course of study at the best does not consist of more than the mere rudiments of an elementary education; of more than the opening of the way for the after-gaining of a knowledge of literature, science, and art; of more than the opening of the eyes of the mind so that pupils can see, of the ears so that they can hear, in order that thereby a life of study, investigation, and thoughtfulness may become a possibility. The teacher and the librarian, their spirit as personalities, their warnings as persons of experience, their suggestions as persons of culture and of larger opportunities, their helpfulness as men and women of power, and their sympathy as humane and as encouraging social factors, are of more importance than either buildings or books. Their living, breathing, thinking, acting service can be and should be an inspiration that persists when the environment is broken and when the life they have touched represents this influence in society.

The method of operation.—There is certainly no one method that deserves endorsement as the best method of accomplishing this unity. The pupils of every school need to have access to the library under a sympathetic, benevolent supervision, and this should be friendly and personal rather than authoritative and official. The books the pupils read should have been factors in the experience and acquaintance of both librarian and teacher, and the information, style, and teaching there obtainable should be in such complete possession of these instructors that a conference relative to the thoughts and notions there learned should be a highly esteemed privilege. The discussion of the subject-matter of these books is an important matter and the benefits that will come from such reviews and reconsiderations are far beyond any education that can be obtained from random and unrelated reading. The library should then have a department in every school and the teacher and the librarian should be coöperating instructors in bringing pupils and books together as a part of a planned educational effort. The union of this work under the library management and supervision is a very important arrangement, and the librarian should give the teachers instruction, help, and encouragement continually and systematically. The main question is not one of numbers of books so much as quality of books; the work is not so much voluminous reading as it is thoughtful, painstaking reading; the object is not so much information as judgment and taste; the result to be sought is not so much a finished product and completed scholarship as it is hunger for more reading and more study and an interest in the problems and lessons of civilization that will persist during life. There is really too much so-called reading that is a result of a desire to produce emotional effect and too little real reading that is truly identified with remembering what is read and with appreciation for the knowledge thus obtained. There is too much actual eagerness for the story with its various plots and complications and excitements, and too little eagerness for the development of taste, the perfection of style, and the adoption of the nobleness of the conceptions of life there portrayed and developed. It seems that the same book read and digested by a whole school at the same time could be more valuable as an educational agent than forty different books read by forty different pupils without this opportunity to discuss and compare opinions and impressions. This reading and digesting should be managed with common-sense and discrimination, the analytic method of explaining everything should be repudiated and the using of the knowledge, the literature, and the sentiments expressed for the growth of discrimination and the development of character and of ideals should be accomplished. Reading should not degenerate into study, as it has a place, and a good place at that, in the life of a child, that study cannot fill. It should be free and spontaneous and enjoyable as an exercise and yet it should have a residue that is of value in schoolwork and personal development. Talking about the reading cultivates discrimination, corrects errors of impressions and compels further investigation of the facts and standards presented, since there will always be results in the comparison which will show that different interpretations were obtained from the same source and that there is a probability that neither may be exactly correct.

The expansion of the service.—The most important fact in this connection is the absolute need for the expansion of the service of both the library and the school. Neither is able to reach the standard of value that its possibilities offer. Neither is permitted to fill completely its mission to society because its privileges as now conferred are for the few and for the prepared. Equality of opportunity is not a fact when the multitude of the people or pupils are considered. There is no such a thing as equality of opportunity when human privileges are considered. What is opportunity to the scholar is not opportunity to the ignorant man. What is opportunity to the student is not opportunity to the indifferent person. What is help to the intelligent and the inquiring is not help to the foolish or the careless. But while this is to be acknowledged yet it is a fact that civilization's instrumentalities as represented by the school and the library are conducted on the theory of minima rather than a theory of maxima, on what is the least thing we can do to inherit eternal life rather than what great things we can do to make eternal life full and complete in all respects, not only hereafter but here. Talk is cheap, doing is expensive. Theory is simple, practice is complicated. Promise is easy, performance is hard. These very conditions are necessary realizations, because without that state of the public mind, progress, improvement, and development are incapable of being accomplished.

DEPARTMENT OF SPECIAL EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—E. R. JOHNSTONE, superintendent, State School for Feeble-Minded, Vineland, N. J.
Vice-President—OLIN H. BURRITT, superintendent, State Institute for Blind, Overbrook, Pa.
Secretary—JENNIE C. SMITH, principal, Oral Day School for Deaf, Eau Claire, Wis.

FIRST SESSION.—WEDNESDAY MORNING, JULY 1, 1908

The meeting of the Department of Special Education was called to order at 9:30 A. M., in the Euclid Avenue Baptist Church.

The subject under consideration was "The Special Child." The president, E. R. Johnstone, superintendent of the School for the Feeble-Minded, Vineland, N. J., made the opening address.

Earl Barnes, lecturer for the American Society for Extension of University Teaching, Philadelphia, Pa., then addressed the Department upon the subject, "The Public School and the Special Child."

Jane Addams of Hull House, Chicago, Ill., spoke on the subject, "The Home and the Special Child."

The topics were discussed by Alexander Johnson, secretary of the National Conference of Charities and Corrections, Indianapolis, Ind.; Mary T. McCowen, Deaf-Oral Department, Chicago Normal School, Chicago, Ill.; H. H. Goddard, Vineland, N. J., and M. P. E. Groszmann, Plainfield, N. J.

The chairman then announced the following committees:

ON NOMINATIONS

Alice F. Morrison, Vineland, N. J., *Chairman*
F. L. Morse, Chicago, Ill.
Gertrude Van Adestine, Detroit, Mich.

ON RESOLUTIONS

Mary R. Campbell, Chicago, Ill., *Chairman.*
Mary T. McCowen, Chicago, Ill.
M. P. E. Groszmann, Plainfield, N. J.

An adjournment was then taken until 9:30 Thursday morning.

SECOND SESSION.—THURSDAY MORNING, JULY 2

The meeting was called to order by the president at 9:30 A. M.

The subject for discussion was "The Problems of the Special Classes."

Elizabeth E. Farrell, inspector of Ungraded Classes, Public Schools, New York City, led the discussion.

Almeda Adams, Cleveland, Ohio, spoke on "The Education of the Blind Child with the Seeing Child in the Public Schools."

Isabelle Thompson Smart, medical examiner, Department of Mentally Defective Children, New York City, then continued the discussion opened by Miss Farrell.

This discussion was continued further by Gertrude Van Adestine, principal of the School for the Deaf, Detroit, Mich., Walter S. Cornell, medical inspector, Department of Health, Philadelphia, Pa.; H. H. Goddard, Vineland, N. J., Adelaid Rudolph, librarian for the Department of the Blind, Cleveland, Ohio, and Marian Campbell, agent for the Society for Promoting the Interests of the Blind in Cleveland, Cleveland, Ohio.

Miss Mary R. Campbell then offered a statement regarding the committee appointed at the Asbury Park meeting in 1895 of which she was chairman. This statement explained the work of the committee and the reason why the proposed commission had not been appointed, and contained a recommendation that the committee be discharged from further work in view of the fact that the committee appointed by the National Council, on "Investigation of Provisions for Exceptional Children in the Public Schools," had already covered much of the same ground.

On motion the recommendation of Miss Campbell was approved and the committtee discharged.

Maximillian P. E. Groszmann of the Groszmann School, Plainfield, N. J., and chairman of the committee appointed by the Department at the Los Angeles meeting on "The Problem of the Exceptional Child" made a statement explaining why it had been impracticable for the committee to meet or to accomplish valuable results because of lack of funds for the committee's expenses and because of uncertainty as to the relations which the committee bore to the committee of the National Council. He recommended that the committee be discharged and a new committee appointed to continue the work, provided an appropriation for expenses can be secured from the Board of Directors of the Association.[1]

On motion the committee appointed at Los Angeles was discharged and the president of the Department was authorized to appoint a new committee to continue investigations on the "Problem of the Exceptional Child."

The president appointed the following committee:

Maximillian P. E. Groszmann, of the Groszmann School, Plainfield, N. J.
Olin H. Burritt, superintendent State Institution for the Blind, Overbrook, Pa.
Mary T. McCowen, head of Deaf Oral Department, Chicago Normal School, Chicago, Ill.
Elizabeth E. Farrell, inspector of ungraded classes, Public Schools, New York City.
Lightner Witmer, professor of psychology, University of Pennsylvania, Philadelphia. Pa.

The Committee on Resolutions reported several resolutions thanking the local authorities who had aided in making the meetings of the Department a success, and also the various speakers on the program. A resolution was also reported asking that the Department be granted representation in the membership of the National Council.

On motion the resolutions were adopted by unaminous vote.

The Committee on Nominations reported as follows:

For *President*, Jennie C. Smith, principal of Oral Public School for Deaf, Eau Claire, Wis.
For *Vice-President*, Cornelia E. Bingham, assistant Deaf-Oral Department, Chicago Normal School, Chicago, Ill.
For *Secretary*, Elizabeth E. Farrell, inspector of ungraded classes, Public Schools, New York City.

The report was accepted and the secretary instructed to cast the ballot of election.

Upon motion, the session adjourned.

JENNIE C. SMITH, *Secretary*

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

THE FUNCTIONS OF THE SPECIAL CLASS

E. R. JOHNSTONE, SUPERINTENDENT OF SCHOOL FOR FEEBLE-MINDED
VINELAND, N. J.

Apparently the most important duty of the special class is to give training and education to those children who rightfully belong to it. But it seems to me there are more important things to be considered. Just as in the great manufacturing industries, those things which were once thrown away as waste have become the most valuable output as by-products, so the incidental things in connection with the training of special children will, I believe, be the most important.

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[1] These statements, which were quite lengthy, are given in abstract, since they were of temporary interest only.—[EDITOR OF THE VOLUME.]

We must use every endeavor in our special-class work to remove from the grades all children whose physical or mental infirmities unfit them for normal life and progress with normal children. We must remember that it is the normal child who suffers most from contact with the special child who is unable to follow the work of the class. The special child takes more than his share of the attention of the teacher, and, as a matter of fact, the special child does not benefit sufficiently to entitle him to this extra attention. It is true that for many years there will be in the regular schools many children who should have special attention, and until the great body of citizens and educators learn to recognize the damage these children do and the loss of time they entail, there is but little likelihood of their being properly sequestered.

The special class must become a clearing-house. To it will not only be sent the slightly blind and partially deaf, but also the incorrigibles, the mental deficients, and cripples. In the beginning it must be expected that more than one of these types will be found in the same classroom, and indeed all of them may drift in. The teacher must not become discouraged. As a better understanding comes there will be closer differentiation and separation will be more complete. In the case of the mental deficients, many children of comparatively low grade will drift into the classes. Indeed there are now in special classes thruout the country many who are actually feeble-minded and imbecile.

It is all very well to say that the state should take care of such in its institutions. The fact remains that it does not, and for many years will not. The burden even now is too heavy. Most states are using from one-quarter to one-third of their revenues to support the penal and charitable institutions of the commonwealth. This is due to the fact that the problem was not realized many years ago, and so for a long period we have been attempting to cure and care for, when in reality we should have taken steps to prevent. Now that we are awakening to the necessity of this work, we dare not stop until it is properly done.

Public-school men may say, "This is not our problem." To say this means nothing. The children are here; they are present in the public school in large numbers. They cannot be turned out. What are they going to do about it? The only thing to do is to give them the best care and training possible. Keep them in the special classes until they become too old for further care in the school, and then they must be sent to the institutions for safety, or they must be transferred to their homes, if they are such as can be trusted there. As I said, the special classes must be the clearing-houses.

The teacher of the special class, and indeed all who have to do with it, must make it a business to give information to the public as to the magnitude of the problem, and as to just what it means to have these children with the normals. It is at this point that medical inspection in the public schools will be helpful. It is too bad that medical inspection as usually carried on has been very inefficient in so far as being beneficial to the subnormal or slightly blind or deaf child. The inspectors have not recognized sense defects, adenoids, etc., nor even the commonest forms of mental defect. I realize that there are but few physicians and many children to be examined and that good work has been done in the prevention of contagious diseases, and in the improvement of environment tending to make things more hygienic. The great trouble is that the medical colleges have not realized their duty, and so their students have no instruction in the diagnosis and prognosis of mental deficiency.

Next in importance, or indeed perhaps more important at this time, is the training of the teacher along this line. Nearly every teacher spends some time in the primary grades, and I may say, without fear of contradiction, that no primary teacher thruout all the country but has had at least one mentally deficient child in her class. She has not been equipped to recognize him and so she has suffered much wear and tear on her nerve force and many an unfortunate child has been misused (I use the word kindly) because it was not understood. Our state normal schools will be greatly at fault if they do not at once make it their business to teach their students to know something of mental deficiency, the possibilities with the children and the dangers to society by those who are near the border line.

In this whole problem, perhaps more important than physician and even of more importance than the teacher is a good psychologist. He is in a position to advise in both directions and really represents the point at which the two lines, teacher and physician, should meet.

The special class must be what the up-to-date institution of today endeavors to be; viz., the laboratory for the public-school classes. Already it is interesting to note how the teachers in the primary grades go to the special class teacher to learn how she accomplishes, with subnormal children, results which they find difficult to obtain with their normal children. It is interesting to note how easily the truant is kept in school as soon as he gets to the special class. Here his interests are made paramount and the routine of the school is secondary. Working with special children makes us realize and see in a new light the statement of the Master, "A little child shall lead them." I firmly believe that our most advanced ideas on educational procedure will come from the study of "special" children and their mental processes.

We stand on the curb and see an automobile whiz by at twenty miles an hour. We get but a very general idea of its structure and mechanism. Another passes at four miles an hour. We see much more. We can recognize the occupants and see its number and understand much about it. Still another comes; this one stops. We may study it at our leisure, know all about it, even perhaps get in and learn to drive it. The normal child observed by its teacher is seen as is the automobile going at twenty miles an hour. His mental processes are so rapid that she can learn but little of them. It is a fleeting glance and he is gone. Our children are slowed down and some go at four miles an hour, some at two, and some are standing still. We study them as we please. We may get to understand many of their mental processes. But their mental processes are the same as those of the normals. The difference is one of degree, not of kind. That is why we teachers of feeble-minded people are bold enough to come to you and say, "It should be done this way." We have been in the automobile. We have driven it. Because we dare not undertake to teach a child something which in our case takes two or three years, but with the normal child would take only two or three months, and fail, we must constantly ask ourselves of what use will this be to the child. It seems to me that this is a question that might well be asked of many things in the curriculum for the normal child. We are not quite ready to prove, altho nearly so, that your courses of study for primary and intermediate children must be radically changed. There is so much stuff in the course which will never be used excepting to pass an examination for a teacher's license in order that the teacher may impose it upon her pupils so that they may pass a teachers' examination, and teach other pupils, etc. We are sure that your arithmetic with first- and second-year pupils is wrong, and as the Scotch woman said, "we hae our doots" of your reading and geography, etc.

The special class is showing the great value of industrial training and demonstrates at every turn that normal children must get more away from book-learning and do things. We do not claim great knowledge because we asked for this many years ago. It was simply forced upon us because of the class of children with whom we work. Is it not fair to say that no matter when a child leaves school, he should know those things which will best equip him for the life he will probably lead, and is it not part of the work of the educator to find out what kind of a life most of his children will lead, if they leave school before the college period?

Perhaps the greatest lesson the special class has for the regular class teacher is the need of making the children happy in their work. If the children do not want to go to school, surely there is something wrong with the school. The teacher's indigestion, or her weariness from having been up too late last night, or her annoyance at something that occurred out of school, is so easily reflected by the children that even she, herself, conscientiously blames the pupils for the disorder caused thereby.

In our institution for defectives we say, "Happiness first and all else will follow." It is literally true to say that the happiest children in the world are those found in the schools for defectives. Here the whole atmosphere is one of encouragement and praise. It is positive, not negative. It is the things that the child does correctly that are made much of. The incorrect things and mistakes are ignored and forgotten as far as the child may see. The child must never fail, no matter what he does. His endeavor must be recognized. He must be put in a position of wanting to do things, and the most successful teacher is the one who can create a desire in her pupils. A number of our tests show conclusively that praise increases power and blame stops effort. Again because his mind works slowly and because everything must be reduced to its simplest form, our special-class work gives us the habit of speaking accurately, of saying just what we mean in the fewest and simplest words, of making sure at every turn that our children thoroly understand. Cannot the regular teacher benefit from this?

In closing let me go back a moment and remind you that the greatest lesson the special child has, the greatest function of the special class, is to teach those of us who have to do with normal children that we must make them happy. Surely sadness and sorrow come soon enough into our lives. We, who stand before the face of trusting childhood, must give it happiness and joy in its play, which is its work.

THE PUBLIC SCHOOL AND THE SPECIAL CHILD

EARL BARNES, LECTURER ON EDUCATION, PHILADELPHIA, PA.

This paper was prepared before the Preliminary Report of the Committee of Investigation on Provision for Exceptional Children in the Public Schools was made public. The agreement which will be found between its proposals and those made by the able committee which has issued the report simply shows the uniformity with which public opinion advances in a modern democracy.

Since 1890 we have been slowly establishing in all parts of Europe and America special schools for peculiar children in connection with the public schools of the municipalities or states. At present, organized public opinion is giving these schools general support. In a year or two, the usual reaction is sure to come and the people responsible for these schools will be declared faddists, and accused of wanting to put all the children into their pet schools. For this reason, it is well to realize that this movement is the natural result of developing intelligence in the community, and by no means an accidentally discovered field for new experiments.

There are three reasons why the public consciousness has been awakened to this need at this time. In the first place, modern democracies are growing more and more intelligent and they have reached this point of self-consciousness. Consciousness of any new fact or social need comes to the masses of the people at first as a sweeping generalization. "All men are born free and equal,". "No taxation without representation," "Equal rights for the sexes" are samples of such developments. One sees these new beliefs emerging into popular consciousness on the banners of all processions of protest. At first, the statement must be sweeping and without exception. Any exception is looked upon as an evasion or a denial. Only when the general statement has been fully accepted can the legitimate exceptions be safely recognized. One of the cries of all modern democracies has been, "Universal, compulsory, free education." Everyone has now come to accept this general demand as justifiable and inevitable if democracy is to continue, and so we are now ready to recognize exceptions.

A second factor that has been influential in calling public attention to special children has been the steady crowding of our people into urban communities. Massing of children into large groups has led to closer and closer classification. Attempts at uniformity have led us to recognize existing varieties. The crowded population has also made it possible to differentiate schools and to provide for peculiar cases as we could not possibly have done when the people were scattered over the land.

A third and very important factor in developing special schools has been the growth of interest in the scientific study of children. It was inevitable that in the development of science it should first attack the field of inorganic matter, and then the general forms of organic life, and that the phenomena of thinking and feeling should wait until the last. Now that we have begun to apply scientific methods to the study of the subjective life at different periods of growth, we find that there is great variety even in children of the same age, and that this variety is sometimes in the direction of defect.

Probably we should also recognize the work of the special schools for the deaf, the blind, for incorrigibles and for feeble-minded children outside the public schools as influential in directing attention to the needs of children inside the regular schools. These institutions have, however, been generally content to work apart, and it is doubtful if they have been so influential as the other factors we have named. Of course, it is true that individuals connected with these residential schools have done and are now doing splendid service in this direction. An institution like the New Jersey Training School for Feeble-Minded Girls and Boys, where a psychological laboratory is being maintained under the direction of Dr. H. H. Goddard, does much to cultivate public opinion. The influence of this school in training teachers for special classes in the public school must also be very great. From such institutions, we naturally get great help in moulding public opinion.

The extent to which the need for special schools exists in America is at present a matter of mere conjecture. The future work of the committee now carrying on investigations under the National Council will, it is hoped, throw light on this matter. We greatly need a careful census of defectives in representative communities. In England, a royal commission has been working on this same subject for three years and its report it now due; it will throw great light on this and other large aspects of the problem.

The extent to which schools have been established to meet this need is equally hard to determine. As early as 1863, a school was started in Saxony; by 1880, such schools existed in nearly every part of the German Empire. At present there are about 14,000 children in special schools in something over 200 German cities. France, with all her interest in the pathology of mind, has done less than most other continental lands to establish such schools. Sweden and Belgium are working out very interesting experiments.

In England, the first special class was opened by the Leicester School Board, in April, 1892, tho the London School Board had formally approved the system a year earlier. Such schools now exist in most English cities and London maintains about eighty of them. London also has several schools for cripples; 8 day schools for the blind, 1 residential; 8 day schools for the deaf, and 2 residential, under the direction of the school authorities.

In America, nearly all our large cities have such special schools. New York has 60; Philadelphia, 11; Baltimore, 22. These schools are not yet well classified, and the supply of specially trained teachers is very inadequate. Still in all parts of America there is a very widespread interest in these special classes and the immediate future will see many important experiments undertaken.

Granted that these children exist in every community, the problem of separating those who need special treatment from their fellows is most difficult. It is almost impossible to draw a line of definition between the normal and the special child. Chronic disease, blindness, deafness, feeble-mindedness, and incorrigibility exist in every degree of development, so that it would probably be possible to arrange all the children of the state in a series, from the most perfectly endowed to the congenitally blind or deaf and to idiots, with nowhere a break in the sequence. Where, then, shall we draw the line of separation? It will never be possible to answer the question with finality; but in general we can say: All children should be put in special schools who cannot do the work of the common school with advantage to themselves and to their fellows.

The parent cannot be trusted to make this selection. Nature has so endowed parenthood with loving solicitude that no normal man or woman can have a fair and unbiased judgment of his own child. A trained physician would not treat his own child if he were very ill, because he could not trust his love-clouded judgments. Still less can the ordinary parent judge of chronic peculiarities, when they touch the marginal line of normality. The teacher has not the special knowledge for diagnosis in such cases, and so the judgment of trained medical men becomes imperatively necessary. From time to time all the children of the state should pass thru the hands of trained experts who, after advising with teachers and parents, should be empowered to separate children who need special care from the general group.

It is wonderful what skill medical men acquire in this direction. I once saw Dr. Francis Warner take a hundred children in the Home and Colonial Training College in London and examine them before a committee for the British Child-Study Association. Each child was numbered and the teachers had prepared annotated lists giving their estimate of each child. Dr. Warner went thru the hundred children and dictated statements concerning about twenty that he selected as requiring special attention. He found every child that the teachers had considered in any way peculiar, and his analysis of each case was strikingly convincing. The whole work was completed in an hour.

Many people would still maintain that the children thus selected, those who are near the margin of normality, should be kept in the regular classes that they may have the encouragement of their abler fellows. Temporary cases of failure, due to acute diseases, absence from school, or the like, may be won back to their regular level thru feeling the pressure of competition with their fellows. Chronic cases, however, inevitably fall behind and become demoralized and discouraged. I have watched the steady deterioration of children under such circumstances until it seems to me criminal to continue the process.

Children who can do their work well are seldom bad, and it is commonly remarked that so-called incorrigibles are often defective. It would be truer to say that defective children are often made bad by their inability to play their part in the regular classes of our schools. The positive side of the matter is, however, even more convincing than the negative. These children need specially trained teachers, a special plant, and a special course of study to do their best work. These conditions cannot be provided in an ordinary school and so these children should be put by themselves.

Defective children are of so many classes and need such widely different treatment that they should not be grouped together. Some are exceptionally bright and some are exceptionally good; these should not be classed with the dullest and worst children in the city. Let us discuss, then, the different groups who will need to be provided for in a highly developed system of schools. Acute diseases will be increasingly detected thru medical inspection of schools. Epidemics of children's diseases are decreasingly common where such inspection prevails. Adenoid growths and acute diseases of the eyes and ears will be cared for in hospitals, if parents cannot be made to respond to warnings. In similar cases of parental neglect district nurses will treat bad heads and skin diseases.

Crippled children, including cases of rickets, tubercular joints, paralysis, hip swellings, weak hearts, and general anaemia, should have the best attention that can be given them. Such children are often bright; they can generally be made self-supporting, whereas if uneducated they would often become a state charge; education would bring them a great access of happiness; and their troubles are seldom inheritable. In the city of London, in 1900, Dr. Berry found 606 physically defective children not attending any schools. Mrs. Humphrey Ward and others started day schools for these children, which have now been taken over by the city. The special conditions considered necessary for such children are a collecting ambulance, a trained nurse in attendance, sunny rooms on the ground floor with a yard, and a perfectly flexible curriculum.

Blind children, or those nearly blind, can also be best educated in day schools, where there is a large population. If kept in connection with their homes and with natural neighborhood ties they will be provided with employment as they grow up and will find a natural adjustment in the social life around them. If segregated in residential homes they lose these social connections and there is always a tendency to form a blind habit which unfits them for a later return to organized society. Of course, a school may become as much an institution as a residential home, but the point is that the children should be kept in living relations with their families and with neighborhood associates. In the institution there is also increased danger of intermarriage among the congenitally blind, and while the question of inheritance here is far from being settled, there is certainly danger of blind offspring. In the case of these blind children provision must sometimes be made for bringing them to school and they should be placed in charge of teachers who have made a special study of their peculiar limitations. Children who are only partially blind can generally be provided for in the ordinary class rooms if the teachers have the cases clearly in mind.

Deaf children present a greater difficulty than either of the last-named classes. It is generally conceded today that they should be taught to read the lips and to articulate. This work requires very special knowledge on the part of instructors and long-continued drill. If the children return daily to their homes, there is great danger that in the less intelligent families the work of the school will be largely undone overnight. At the same time, these children are much more capable of being taken into the social group when grown up than are either of the other classes. There is no reason why residential schools could not be provided in city systems, as they are in England, where the children could have all the advantages of constant residence in an asylum and where they could also be kept in contact with their relatives and neighbors.

With the feeble-minded children, new factors are introduced which make the treatment given these earlier classes impossible. There are no reliable statistics available, but it is probable that from 1 to 2 per cent. of the children in the common schools fall within this group. The census of 1900 returned 100,000 imbeciles and idiots in the United States. This is probably about two-thirds of the right number. Not more than one-tenth of these were in institutions or schools. We have today very great need of a commission in idiocy, with powers comparable to the commission in lunacy. The difference between a feeble-minded child and a normal child seems to be one of degree only. This would seem to give us great cause for hope in the treatment of such children; but the difference quickly becomes so great that a life-time is not long enough to bring these children up to the normal level. This fact taken with the universally recognized fact that this class is fecund and its defects inheritable makes it impossible for us to look upon organized effort to restore them to the general group with satisfaction. A community must not turn its sewerage back into its water supply.

In Germany, such children have been educated in special classes, since 1863 in Saxony, and since 1880 in the greater part of the German Empire. There are now special schools for them in 203 cities in Germany and the number of children in attendance is over 13,000. Dr. H. H. Goddard tells me that great emphasis in these schools is directed to finding marked cases and to removing them permanently from contact with the social group. In London there are about 7,000 children in such schools under the school department and there special emphasis is laid on bringing them up to a point where they can be restored to their place in society. The same attitude of mind prevails in America but it is to be deprecated.

Since the investigations of Seguin, begun in 1837, there has been almost universal agreement in adopting his ideas for the training of feeble-minded children. Exercises are devised to produce co-ordinated muscular action and these are repeated to build up the nervous system. Every effort is made to keep the child in an atmosphere of kindly interest and loving feeling. Whatever can be done to build up a normal nervous system must be done along the lines of this physiological education. The processes are slow but ordinary mental exercises are generally impossible and useless with these children. Since there is no absolute dividing line, however, between these children and the normal group, we must take those who are too backward to work with advantage in the ordinary grades and put them in special schools. Some will improve in early childhood or during the period of puberty to such an extent that we must allow them to go back to the general group. The marked cases of mental defect should be removed to permanent colonies, like that of Vineland, N. J., where they must spend their lives. They should be cared for and protected by the state and their lives will be made happy thru varied employment and thru the self-sacrifice of devoted men and women such as always gather about misfortune.

Of course, such special schools as are here described can exist only in city or large village communities. In country districts we must still get along as best we can, by removing the more difficult children to residential homes. In all this we have said nothing of criminal children. Doubtless we must have truant schools connected with the public school but they are a make-shift device to meet conditions that ought to be prevented. Society grows daily more intelligent and self-conscious and with the coming of a larger sense of our individual responsibility for each member of the group we shall provide so well for our defectives that we may hope in time to destroy the supply.

DISCUSSION

Alexander Johnson, secretary of the National Conference of Charities and Correction, of Indianapolis, Ind.—I have long regarded Professor Earl Barnes as a leader of the new education. I have known of him for many years. But only this morning I have found out how to improve him, and I want your sympathy in telling you just how he should be improved. If I had him in charge and he had to do what I told him, I would send him to a school for the feeble-minded to be its principal for one or two years. I believe if Mr. Barnes could add that one little bit of experience to what he has now, he would be one of our greatest prophets of the new education. He does not know the feeble-minded child; he does not love the feeble-minded child—as those who teach and care for the feeble-minded child come to love him—and so he cannot see that it is worth while to give almost infinite patience to raise that child a little way toward the stature of a man.

Is it worth while to make this great effort when the result is so slight? Yes, because the feeble-minded child still is a child and therefore entitled to his share as a human being in the best we have. If you do not believe that the child is not a mere thing of today, to be classed along with an animal and treated like an animal, or to be operated upon like an animal because he has some function which he ought not to exercise, if this is your idea, leave him alone, please, and let somebody have him who thinks he is a child of God, a weaker little brother, and worth a very great deal. He must not go out into the world, never! He must not become a father, never! He must not be exposed to hardship and abuse and ill treatment and temptation. Why cannot the feeble-minded child who has been trained in a school go out and earn his living? Because people will not be fair to him; because his father and mother are not fair to him; because his sisters and brothers are not fair to him; because his employer, if he have an employer, is not fair to him, but expects from him, tho he pays him a child's wages, the work of a man. He seems to have the physical capacity for a man's work, but he has not and cannot have a man's judgment. That is the chief reason why the feeble-minded child must be segregated and separated. The chief purpose of the special school. as far as the feeble-minded child is concerned, is to differentiate, to make quite sure that every one of the really feeble-minded children shall be placed in the state's care for life.

Dr. Barnes' theory of the child requiring the special class going home when school is over is splendid. It is in line with all our theory about institution work. The less institutionizing the better, thru all grades and classes of school life. The less you institutionize your pupil the better teacher you are all the way thru. Institutionizing does not require necessarily a brick house with a plastered wall and slate roof. Matrimony is an institution, the Christian church is an institution, the school itself is an institution. The real antithesis is not between placing a child in an institution and leaving him at home; it is between the institution method and the case method. What is the case method? It is this: you have the child before you, for instance an incorrigible boy; you have a great variety of institutions, schools, classes of all sorts and conditions. Your business is to forget everything but that boy, all your mechanism, every one of your preconceived schemes and plans, just as tho you were alone in creation with that individual boy; you must study the boy and ask yourself what ought to be done with this one boy; what is the best possible thing to be done with and for and to and by him When you have made up your mind on that question, you are ready to start doing something. It may be that you have a school exactly arranged to fit this boy's case; it may be that there isn't anything in the universe that fits his case; you may have to create a new scheme for this particular boy; that is the "case method." The opposite is the institution method. You have a curriculum and you take the boy and jam him into that curriculum and push him in and make him fit, and in the old days when he didn't "larn" you "licked" him. You don't "lick" as much as you used to. Every time you have to use "physical treatment" (as Brockway calls it), you feel ashamed of it. That is the institution method; it does not matter if it is within the four walls of a building or out on the prairie.

If the feeble-minded child is to have the advantage of comradeship and all those things that make boys into men (because what they get outside of the school room does more for them in making them men than any teacher can do), he must be among his own kind and hence in a well-classified institution. It will be in the large institutions that we can classify. I am talking about the feeble-minded of all grades now, from the lowest to the highest. There must be a thousand children, with fifty kinds, to make twenty of a kind, and if the classification is close there will be five hundred and fifty kinds of children in a thousand.

We must take advantage of every natural and useful instinct of the child and develop these tendencies by means of education and employment. The maternal instinct may be utilized and satisfied by allowing them to take care of the more helpless of their own kind; profitable and suitable work may be found for each and every feeble-minded child of the higher grades. Work for the feeble-minded must consist in segregation from the body politic for life and protection by the state first, and then happy surroundings and pleasant occupation with as much mental education as they are capable of receiving.

MARY MCCOWEN, teacher in charge of the Deaf-Oral Department, Chicago Normal School.—I am strongly reminded this morning of the fact that only a few years ago manual training and the kindergarten were both struggling for tardy recognition on the program of the National Education Association; and more recently, when friends of the deaf were asking for the establishment of a department in the interest of their special work, the request was finally granted only on condition that the teachers of the blind and feeble-minded should also be included with the deaf, and there was great discussion and hesitation lest adequate support for such a department would be lacking. But the character of this large audience justifies beyond question the establishment of that department and proves a continued and enthusiastic interest in its problems which have come to be recognized as the problems underlying all education.

From statistics as to the number of the so-called defective classes it appears that in the population of our country one in fifteen hundred is deaf, a smaller proportion blind, and one in about five hundred is said to be feeble-minded. If each of these classes represented distinct educational problems it would naturally follow that the numerical preponderance of interest in this department would be in the section for the feeble-minded, but as long as there are deaf children who are also blind, both deaf children and blind children who exhibit all degrees of intellectual acuity from the very bright down to the imbecile and even among normal children many who have some peculiar abnormal habit or condition or some slight defect of hearing or sight, no problem can possibly arise with any one of these classes, the deaf, the blind, or the feeble-minded, that it does not at once become of deep importance to all who are interested in education, whether it be of so-called normal children or of any special group of the so-called defective classes.

In continuing this discussion, therefore, while not following directly the line of thought already presented, I shall count upon your interest in a brief statement of certain conditions among the deaf that are too often misunderstood. I refer to the children gradually becoming deaf who are to be found scattered all thru the grades in our public schools. Many of these children have perfect speech and for a time may not seem to lose much of what is going on about them, but the deterioration described so clearly by Mr. Earl Barnes in the case of the feeble-minded child, who is kept in an environment which does not meet its needs, is just as inevitable in the child gradually growing deaf. From week to week such a child loses more and more of the language used in his presence and gets more and more out of touch with the hearing world until finally he becomes utterly discouraged and unhappy and leaves school altogether or perhaps finds his way into the deaf department when too late for us to render our most valuable service to him.

If partially deaf children, instead of remaining in classes with hearing children until they reach the hopeless stage, were placed with a teacher of the deaf as soon as even a slight degree of deafness developed, they could be given speech-reading, the power to understand spoken language by observing the face of the speaker, which is the only thing that can keep them in touch with a hearing environment. True, it takes time to become an expert speech-reader but as the child gradually grows more and more deaf he will also become gradually more and more proficient in reading speech from the face and will thus escape altogether the awful isolation that is inevitable to one who becomes deaf without knowing anything of speech-reading. Time was when the advantages of speech-reading might be looked upon with incredulity but when the congenitally deaf child who knows not a word can be given his mother tongue and an education thru observing the face, as is being done in many different schools today, no one can question the possibility of giving the same power to understand speech from the face to the partially deaf child who already has language and more or less education and who can in many cases after acquiring speech-reading return to the classes with hearing children.

Now a word about the congenitally deaf and the reason why they are often confused with the feeble-minded. Both classes of children are equally unresponsive at first, but for very different reasons. The deaf child may be of keen intellect with infinite possibilities but nature has closed one avenue of approach, that thru which speech and language comes most easily and naturally to the human family, and he fails to respond when spoken to because he does not even know that there is such a thing as words. Our problem is to recognize his possibilities and to lift him out of that darkness which without education is as hopeless as the condition of the feeble-minded. It is a problem of peculiar pleasure because we are not lifting back into society that does not want it a child who can only be a burden, but a human being with beautiful possibilities who but for our help would be defrauded of his heritage and left in the lowest grade of mental development.

For deaf children with the additional handicap of feeble-mindedness let us have the protected seclusion of the institution or residential home as advocated for other feeble-minded children, where they may be surrounded by kindly care and given the opportunity to pass their lives in happy usefulness, becoming largely self-supporting and the state meanwhile fully protected.

But for the normal deaf child let us provide ample opportunity for development and educational training under the most favorable conditions possible, and then maintain a high standard of required excellence.

H. H. GODDARD, Training School for Feeble-Minded, Vineland, N. J.—There is a seeming disagreement between Professor Barnes and Mr. Alexander Johnson, but between the two sides presented there, we shall find one of the most important truths in connection with this whole matter. We, in institutions, and the people in the public schools in this country, and in Europe, are wasting an immense amount of time and energy on feeble-minded children trying to teach them to do that for which they have no organs, no capacity; namely, to master elaborate abstraction, the abstractions of reading and writing and number work. As I understand it, it was that kind of wasting of energy that Earl Barnes had in mind, and that he agrees with Alexander Johnson as to the value of manual work for lifting up these children to help them as far as possible.

If a child is a pretty bright imbecile, he can learn to do a good many things with his hands. If he is a pretty dull one, it may take him the whole fifteen years to learn to do one thing. When he is past the trainable age, twenty or twenty-five, perhaps, give him one of those things for which he has shown the greatest adaptibility, as his life work, as his trade, and let him be happy and useful in doing that.

I want to remind you teachers that just as we have within the past years discovered that the most dangerous cases in our schools are not the blind children or the deaf children, but the children that are slightly defective in sight or slightly defective in hearing, and consequently were not discovered, we waste our energies by not getting at these defectives. In the same way we must recognize that the most dangerous child in a community is the moderately mental defective child because the population cannot understand him, does not recognize that he must not be allowed to mingle in the community, to marry and to beget his kind. The schools abroad are training these children until they are fourteen years of age and then turning them loose on an unsuspecting public. We, in this country, are in a condition to recognize and to act much more wisely on this subject, if we will give it attention and study the problem.

M. P. E. GROSZMANN, Plainfield, N. J.—What Mr. Barnes said in regard to warning against institutionalism may perhaps need a little modification. I wish at least to go on record as stating that there is a class, not absolutely imbecile, that also needs institutional life in preference to bad school and bad home influences. I refer to that class which Dr. Goddard has also mentioned, but which has not been mentioned at all before, the moderately defective, as he puts it. The home environment of such a child may present defects which impress themselves upon the child. Some children have parents who create a home environment and a home atmosphere which is overcharged with nervous tension, and there exists, even among mothers who attend child-study lectures and mothers' clubs, a great deal of ignorance in addition to many inconsiderate notions in regard to the education of children.

I would like to emphasize the fact which has become very clear in my mind ever since yesterday when we had the first meeting of the child-study section, and today, when we had the first meeting of the special department, that those two departments have struck the key note of educational progress for the entire National Education Association. You will remember that even the National Council appointed a Committee of Investigation of the Problem of the Exceptional Child. And this is a very significant fact: In the study of the exceptional and defective child, we learn to understand the normal child. The way in which children are handled in classes for defectives is a model, it seems to me, for the teacher of ordinary classes. In this city of Cleveland, I was told yesterday, there is a teacher who undertook the work of teaching a defective class, so-called, but that class was the only class in the city of Cleveland where it was a punishment for the children not to be allowed to come back the next morning. If a teacher for the defective children can accomplish such a result, it seems to me that she is a model for other teachers.

THE HOME AND THE SPECIAL CHILD

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In discussing the problem of the special child it is, of course, necessary to consider it from the point of view of the child who is somewhat mentally deficient, and of the child who is what we now call incorrigible or delinquent.

Mr. Barnes is doubtless right when he says that it is difficult for a parent to make a clear judgment in regard to his own child, especially in respect to the child's mental or moral capacities. But, if parental affection clouds the power of diagnosis, at the same time, after the diagnosis has been made by the trained mind, parental affection enormously increases the power of devotion which is necessary to carry out the regimen which the trained mind has laid down. To convince the parent that by following a certain line of action his child will be enormously benefited is simply to turn affection into a scientifically prepared channel.

When deficient children are discovered in their homes, are taken care of by trained teachers, after they have been diagnosed by child-study departments, and when all the apparatus of public education is turned on, the parent is convinced that his child is not an exception. When the parent is besought to aid in this process of special education, then he first loses his peculiar sensitiveness in regard to his child. The reaction of this change of attitude upon the entire family is something astounding. I think it was Father Huntington who once said that the essence of immorality is to make an exception of one's self, and certainly the essence of self-pity is the conviction that one is so isolated. Comradeship dispels self-pity as the sun dries up dampness. You think you have a child unlike other children; you are anxious that you neighbor shall not find it out; it makes you secretive; it makes you singularly sensitive; it places you and the normal children in the family in a curious relation to the rest of the community; but if you find out that there are many other such children in your city and in other cities thruout the United States, and that a whole concourse of people are studying to help these children, considering them not at all queer and outrageous, but simply a type of child which occurs from time to time and which can be enormously helped, you come out of that peculiarly sensitive attitude and the whole family is lifted with you into a surprising degree of hopefulness and normality. I could illustrate this with many tales. I remember one case where a family consisted of a widow, two self-supporting children, and three younger children, the eldest of whom was feeble-minded. The entire family had lived a perfectly abnormal life. In the first place, they always rented a rear tenement, because it was thus made easier to conceal the boy from public view. The four other children were never permitted, under any circumstances, to bring companions to the house. The boy was treated with tenderness and care, but with the utmost secrecy. The mother's attitude was gradually changed after days of patient talk and many visits on the part, first, of a trained nurse, and later of a person who was especially interested in the care of backward children. The day finally came when the boy was put in the omnibus for crippled children—for it was one of those cases where mental abnormality is combined with deformity—and taken to the public school openly and boldly, with the omnibus standing in the street, and the child carried out in the arms of a policeman. From that day there was a world-wide difference in the status of the family to the entire neighborhood. Of course such a change could not be brought about until the mother was freed from her sense of isolation, until she discovered that there were many other people who had children of that sort who were not thereby disgraced, that the community recognized such children and provided for them, demanding her coöperation.

That, it may be, is the most valuable result which the recognition of the duty of the state to these children is bringing about. But not even second to this is the opportunity of unlocking their affection, this peculiar care and solicitude which parents have for the abnormal child, whether he is abnormal thru his deficiencies or thru his moral development; thus pouring into public education almost a new force. Froebel used to believe that if he could unlock the love for little children which is manifested by their mothers, if he could pour into the educational system the gaiety of the mother, her delight in her child, her spontaneous desire to play with it, it would bring into education a new and transforming element. At the same time, of course, his kindergarten systematized its manifestations, as the educator of the deficient child would have to train and use scientifically this mysterious tender affection.

There is just one thing more which I would like to emphasize which is being worked out in Chicago. We have a child-study department where any child whom a teacher is confused about and worried about and considers backward may be sent and examined—perhaps to be excluded from the system, but more likely to be put into a special room. We have a school for crippled children—very much such an one as Mr. Barnes has described, and some of us believe that from these points of special education Chicago may secure the best suggestions for educational advance. To illustrate from another great educator—Pestalozzi. He made his discoveries because he had a little handful of orphan children whom he was obliged to care for in a primitive way—to wash and dress and feed. He was obliged to appeal to the children for help; to follow their lead. Of course he was put into the very best possible attitude for making educational discoveries. Perhaps in time educators who are assisted by the devoted parents may come to recognize these children as possible contributors toward the solution of the public-school problems. Educators may face them simply and fairly in a change of attitude to which the parents have brought them.

This reaction of the schools for special children upon the home may bring back into the school some of that early devotion to them which we are in danger of losing. I might illustrate from a family whom I knew very well, who had a mentally deficient child. The family became quite prosperous and moved away from our neighborhood into a suburb, which was a step up for them both in the economic and social scale. They stayed in their suburb only two months however, because the little girl was too far away from a school containing a room for special children. They moved back again so that she might be within the old district, and when the teacher of this special room was put into another district, they moved again into another crowded neighborhood, renting their little house in the suburbs, sacrificing their only pleasure and the advancement of the normal children because they cared so much that the one "special child" should be in contact with the particular person who would teach the mother how to treat her day after day. The mother felt the need of the coöperation, of the renewal of her courage. She wanted the sense of companionship which her connection with this particular teacher gave her, and which no one in the suburb with its tidy streets and its "swell people," as she called them, was able to afford to her. In this combination of pedagogical training and parental devotion, it would of course be necessary to keep a standard of achievement; because the child has gone beyond that which you thought he might reasonably attain, it is not going to help him when he is thrown out into the world where he will be subject to the normal standard, if you have assumed that everything is lovely, when it is indeed only partially lovely. Not to distinguish between optimism and confusion of standard often leads to disaster, and never more surely so than when we over-estimate the capacity of these special children. It is much better to teach such a child to do one thing well and then to place him *hors de combat* as to the rest of life.

I have seen an Italian family change their entire attitude toward a crippled child who was taught to carve wood with his one hand so well that he earned a very fair wage in a furniture factory; but they did not ask him to wash windows altho that was the occupation of the father. And altho it may take half of the seventy years of which Mr. Barnes spoke to recognize the capacity of the defective child, that recognition must, in the end, react upon the home most marvelously. To bring the home and the school into closer connection thru these special children affords a glorious educational opportunity, and the results may react upon the schools in a way we can, as yet, scarcely estimate.

I could illustrate the same psychological process—the reaction on the home by the delinquent boy—in other ways. Take the boy who is arrested and brought into the Juvenile Court in Chicago. Such a child is examined very carefully by a physician—all of the things which Dr. Barnes has been advocating for the ordinary school children are being showered upon incorrigible children while they are waiting for trial. During the period of detention every child is subject to the medical treatment which he specially needs; he is put into a school and given a chance to do all of this advance handwork which has been so much emphasized in this meeting. The results are simply amazing. Sometimes one actually fails to recognize a boy after he has been in this school a short time, such is the result of good food, of baths and all the rest of the things which Mr. Brockway years ago proved efficacious. After he had been subjected to this treatment for a month or six weeks his own parents subtly change in their attitude to him. The mother recognizes that which she always knew was there, altho she had no power to bring it out; and the father, who was said not to be fond of him, suddenly swells with a new sense of pride. The onlooker wonders why this hasn't been done before the child was arrested, before he had to be brought to this preliminary disgrace. Here again I think it is the open acknowledgment which frees the situation, the moral effect when the community is not hostile, nor suspicious, nor watching to see how bad your boy is and to whisper that opinion to the next door neighbor. The coöperating community versus the hostile community enables the parents to lift up their heads and march along once more. I could easily illustrate this, but I am sure illustrations occur to many of you and I am not going to take your time for them, but with your permission I will very hastily resume the three points which I tried to make: First, the changed attitude of the family when the mother understands that her child is one of many similar children, that she is not having a burden unlike any one else which she has been specially selected by an unfair Providence to bear, but that a large group of people are considering the best methods of dealing with children such as hers, and that she may be of great help to them as well as to her child. Second, the advance that may be made in education when we are forced to the special education, and the many suggestions that will result. Third, the care which may be given to them, at the same time keeping parallel the old tenderness and old standard of educational achievement and educational advancement. These, I should say, were three things which we might well bear in mind in relation to the training of the special child and the home.

THE PROBLEMS OF THE SPECIAL CLASS

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The problems of the special class group themselves around two centers: those which arise when we consider the relation of the special class to the social body as a whole and those which arise when we consider the individual to be taught. The social problems of the special class include the questions of immigration, of the after care of the special-class children, the question of the prevention and cure of nervous and mental diseases; while the individual problems are concerned with the selection of children for special classes, the special classroom and its equipment, the teacher, the subject-matter of instruction, and the methods and devices of instruction. The emphasis in this paper will be put upon the individual problems. Of these individual problems one of the most important is the selection of special-class children.

Problems of the selection of children.—Children for ungraded classes should be chosen with the greatest possible care. The initial move in the selection should be made by the school principal. In the course of the day's work he comes to know the naughty child, the child who is not promoted with his class, and the truant child. Upon the discovery of children like those named, the principal should require a thoro physical examination to be made by the physician of the board of health with a view to determining whether the backwardness or the delinquency arises from visual or aural defects, obstructions in the respiratory system, malnutrition, or any other cause which can be remedied by surgery or medicine or by proper diet. If such conditions are found to exist the parent must be obliged to take measures to correct them. While this is under way the class teacher should make very definite records concerning the home and the economic condition of the child's family; his school history, i. e., regularity of attendance; terms spent in each grade; his school attainment; his habits, special tastes, behavior, peculiarities, together with any other information which might throw light on the question of his ability. It will be found that many of the records submitted to the school principal do not seem, in the light of his broader experience, to warrant the transfer of the child to an ungraded class. In this case another teacher in the same grade should be required to take charge of the child and to make records along lines similar to those noted. If, however, the school principal is satisfied, upon examining the record, that the child is probably a subject for an ungraded class, he should apply to the proper authorities for the examination of the child. The special examination should be made by persons in the service of the public schools. The examination should be physical and psychical. The physical examination should reveal any conditions of disease or defect, if such exist. It should take note of the so-called stigmata of degeneration, not as unquestioned evidence of defect, but as confirming or denying other conditions; it should seek information concerning the child's inheritance and life history that will explain his mental retardation. The psychical examination should determine the level of the child's mental life; the character and the quality of his power of attention, of memory, of volition. This examination should reveal also the degree of balance and of proportion characteristic of the individual mind.

Children examined with the precautions indicated will be found to fall into three groups: those who are mentally defective and therefore subjects for ungraded classes; those who are to be continued in the regular grades with more attention paid to the correction of physical defects and to securing wholesome diet; those who are so defective as to be properly subjects for institutional care.

The problem of class management.—I invite your attention now to the teacher and to the principles underlying her procedure in a class for mentally defective children. As is indicated above, the teacher should know, so far as an examination can determine, the point of development already reached by the child when she receives him. She should know from the record sent whether the child is deaf or blind, whether his co-ordination centers are developed and to what profitable point, whether his training is to begin with sense perception or on a higher level. As soon as practicable the teacher should seek the coöperation of the home. The parent should be acquainted with the actual condition of the child with regard to defect and disease. He is advised to seek his own family physician, or the dispensary doctor. The need for special care, for nourishing food, for abundant rest and sleep, should be made plain. This should be done not only once but as many times as may be necessary, and all the pressure of church associations, of friendly visitors, of every good force in the neighborhood should be brought to bear in order to secure the decent physical health and well-being of the child in order that the school may do its work.

The general principle upon which all education of mentally defective children is based is: "Begin where the defect or disease impeded the normal development." This point may be determined in either of two ways: the teacher may begin with those exercises which naturally a boy of given years should be able to do, and from that work backward to the point where the child can accomplish a given exercise. This may be called the negative procedure. The opposite process is that which begins with the most elementary workings of the child's neuro-muscular system, and climbs upward by means of very short, definite, more complex workings until the arrest in development has been reached. This process of localization is a positive procedure. I need not state to this audience which is the more valuable to the child. A process which leaves any child, or adult for that matter, flushed with his own success, his own great achievement, is the process which makes for future advance by giving the individual faith in his own power to do. With the mentally defective child, conscious often of his own shortcomings, realizing frequently that he is different from his fellows, the negative procedure is positive cruelty and when practiced in the school defeats, or at least delays, the achievement of the very purpose for which the school exists.

An application of this principle may be found in the case of a child whose most noticeable characteristic is found in his neuro-muscular system—the power of motion and of locomotion. For example he is heavy, overgrown, sluggish, has a shuffling walk, in fact, has little control. The teacher may begin by having the child sew or weave or use pegs and peg board. She is asking in this and similar exercises that the child use the very small muscles of the fingers which we know to be late in developing and which the evolutionist tells us are complex in their workings. The smaller the organ the more complex the function—must be the guiding rule of our teaching, and working on this principle the intelligent teacher will begin her work with positive success assured. She will attack those large fundamental muscle groups whose functions are relatively simple, and over which some control is exercised by the child. Instead of sewing, pricking, weaving, and the like, the child will use the ladder, vertical as well as horizontal, the basket-ball, foot-ball, the saw, the plane, and similar exercises which follow the natural order of muscular development. From the fundamental muscles the teacher proceeds to the next smaller group, involving perhaps the muscles of the forearm, the lower leg, and finally she comes to the little muscles of the wrist, hand, and fingers, and she may find that what was before impossible the child can now do readily. Our help must be given along the lines of natural development. Dr. Seguin says: "We must promote the natural development of force in the child in order that eventually he may possess the instruments of knowledge."

There is another sequence to be observed in the training of mentally defective children, and this is the sequence based on the natural order of *mental* development. Professor Preyer has made us realize the importance of certain acts of adjustment in the child's infancy. He has called attention to the place of imitation in the development of the child and of the race. He says: "Imitation gives rise to language." It is for the successful teacher of defective children to apply what he sets forth in this regard. "We are likely to put little faith in imitative work. To characterize work as parrotlike is to express our supreme contempt. And yet we know that imitation is the first step in mental development; we know that imitation is a phase of self-activity; we know that only souls can imitate." Imitation is the highest expression of muscular effort. The teacher of mentally defective children must realize that much, if not all, of her first work with a child must be based on this principle of imitation. The teacher of mentally defective children must realize that often she must show the child the movement he is to make. She must put his body into the position she wants him to assume until he feels that position, and so be able to imitate the seen movement reinforced by the "felt movement" of his own body. The teacher in the first work, which of necessity is physical, must believe, with Dr. Stanley Hall, that "will is muscle habit." Habit takes its rise in imitation.

The particular weakness or inability of the child, whether it is concerned with deficiencies or anomalies of motion or locomotion, or whether it is concerned with the deficiencies of the organs of special sense, is taken separately for the purpose of stimulating the organ to perfect functioning, at the same time the functioning promotes the growth and development of the organ. The training of the muscular system by means of games, gymnastics, and manual training, given perhaps for the specific purpose of developing force, at the same time accelerates brain action, first by sending to the brain an increased supply of blood, second by stimulating the organs of digestion, assimilation and elimination, and third, by securing such coördination of eye, muscle, and sense of touch, as we know to promote the complexity of the brain tissue, particularly in the centers controlling the parts named, and has to offer a class of exercise whose specific aim is to develop the power of imitation. The child must be attentive; he must inhibit certain ideas and hold to the one; he must watch the leader in order to know what to do; the exercise attracts his sight, impresses his brain, contracts the muscles first with difficulty, perhaps, but afterwards with increasing ease. The development of imitation will promote quickness and precision of movement. The actual changes in the brain tissues due to this exercise are easily appreciated, and of course this means greater mental power in the child. We have Dr. Harris as authority for the statement that imitation develops into habits, customs, morals, that is, the will side of the human mind, and on the other it develops into perception, memory, ideas and insights, which is the intellectual side of the human mind.

But every exercise must be physical and psychical. Every exercise must stimulate the organ to perfect, all-round functioning. Pestalozzi says: "Whatever the child does gladly, whatever awakens his powers and enables him to say *I can*, all this he *wills*. But this will is not aroused by *words*, it is aroused only by a complete culture which gives feelings and powers."

The teacher must know the actual physical condition of the child each day. She must be able to interpret the white, drawn look around the mouth of the fatigued child. She must know what to do to relieve the tension indicated by the overworked frontal muscles. The child who seems tired out when it first appears in the morning must be made the subject of her careful consideration. The irritable child, ready to strike and fight, must be explained either from his home or his physical condition. Was he whipped for his awkwardness, stubbornness, or so-called carelessness? Was he working later than usual? Was he subject to unusual experiences?

It has been said that the treatment of mentally defective children in the public schools and the treatment of the average normal boy or girl differ in no essential particular. It is a difference of degree, not of kind. We do not have any new methods for teaching reading: we use a combination of all good methods, sentence, word and phonic; we have no new device for developing the sense of quantity or of quality: we weigh measure, compare, reckon; we have only such means as are open to all for the training of childhood. Like the teacher of the normal child we go back to Locke for his philosophy. "Nothing can enter the mind except thru the senses; to Comenius we go for a sequence in training—senses, memory, intellect; to Rousseau we go to realize again and again the supreme importance of knowing the child, and his development which is to come, if at all, thru his experience with things, things, things; to Pestalozzi we go to learn that our aim is not that the child should know what he does not know but that he should behave as he does not behave, and the road to right action is right feeling." And again he says: "I have proved that it is not regular work that stops the development of so many poor children but the turmoil and irregularity of their lives, the privations they endure, the excesses they indulge in when opportunity offers; the wild rebellious passions so seldom restrained; and the hopelessness to which they are so often the prey." To Froebel we go for his philosophy of the unity of all life, even encumbered as it often is by disease, defect, ignorance and crime. From these, the master teachers, we learn to look from the defective mind to the cause of it—the defective eye, the defective ears, the poor control, will explain much and indicate more; instead of nagging and scolding the child for seemingly careless work we seek causes for it in the badly nourished anaemic body, the victim perhaps of our modern slavery—child labor—and likely as not the inheritor of such nervous instability as comes from the parent, who may be the slave of some intoxicant, or the victim of that sad and miserable poverty which undermines the power and usefulness of men.

In general it is true that mental life of greatest reach and possibility is directly dependent on physical efficiency; so our treatment of the mentally defective child must begin in a complete diagnosis of his case. It must proceed along those lines which nature unimpeded takes with the average human infant. We have to do with the "misfit" in the schools, the child out of tune, the child isolated by his inabilities and often by his teacher. It is ours to fit the school to him; to restore the harmony; to socialize him and make him feel with his more fortunate brothers the unity of all life.

The problem of after-care and preventive measures.—One of the most serious social problems we have to face is the problem of the after-care of the special class children. We should take into these classes those children only who are educable to a degree that promises ability for self-support when it becomes necessary for the child to earn his own living. The experience of those engaged in work with the defective classes is that even the most promising of these children have social and ethical defects in addition to the mental defect from which they suffer. They are likely to be coarse and rough or all too gentle. They violate all rules of morality. They are irritable, perhaps cruel and destructive. We know how hard it is for these children to stick to one thing. We know how much encouragement and boosting they need. Yet with these facts at hand we are today turning children out of our special classes who must enter the fierce competition of our industrial life. Have you ever stopped to consider what becomes of them? Is it not safe to say that most of the girls become women of the street and a large majority of the boys get into reform schools and state prisons? If you will consult the reports of the State Custodial House for Feeble-Minded Women in Newark, N. Y., you will find statistics which are startling of the burden that these women have put upon the social body. While the investigation into the mental ability of the boys in the Elmira Reformatory showed that many of them were mentally defective, so far as I know nothing is being done in this country toward the supervision of these children after their school life is finished. These are some of the questions we must face. Does our duty to this child and to society end when we give him his discharge from school? Have we any right to turn into the industrial world a worker who cannot succeed?

Shall we stand back and see a boy sent to a reform school when we know that which has never been formed cannot be reformed?

Do we need legislation which will secure to these children a life free from the stress and stain and final misery to which we now condemn them?

As well as working to secure to these children of today their right to education and a life of happy useful industry, we must also look ahead to the generations to come and do what can be done to insure for them a strong healthy organism ready and fit to do the world's work. This can be insured by making more general the knowledge we now have of nervous diseases and disorder. By means of popular lectures given by recognized authorities the general public can be informed on such subjects as the preventable causes of mental deficiency. By the organization of free clinics for nervous disorders, similar to the one maintained by the Cornell Medical College in New York City, and the one made possible in Baltimore by the Phipps Foundation, we can prevent somewhat the number of morbidly nervous persons and in this way insure a stronger and saner race to carry on the work of this nation.

These two sets of problems must be met wherever the ungraded-class idea is to take root. Our work is "double-headed." We look to the enriching of the individual life. We develop to its greatest efficiency the soul of the child, whose mental ability is blurred yet who must meet the world. But we stop short of the greatest privilege unless we advocate and actively support whatever makes for the integrity of the race stock.

THE EDUCATION OF THE BLIND CHILD WITH THE SEEING CHILD IN THE PUBLIC SCHOOLS

MISS ALMEDA C. ADAMS, CLEVELAND, OHIO*

[*Stenographic Report*]

I am deeply sensible of the honor conferred upon me in being invited to address this representative body of teachers. I come to you in behalf of the dwellers in the shadow, and I hope that what I say shall not have been spoken in vain.

It seems to me that the education of the special child, as you have taken it up, presents this great difficulty: that the problems of the physically defective and those of the mentally and morally defective are not, and never can be, the same. Neither does the fact that a child is a victim of a physical defect involve any abnormal condition of the mind or morals. This problem is radically unlike the problems of the feeble-minded and incorrigible child.

It were indeed presumptuous for me to dare to add one to the many definitions of education which have been given, but I venture to say for my purpose that education in its broadest sense is the highest development, along natural lines, of all the God-given powers—physical, mental, and spiritual. By natural lines, we mean those lines determined by the native endowment of the individual.

The problem of the education of the blind child is, therefore, exactly like that of all other children—of his seeing comrade, save that the peculiar thing to be taken into consideration in his case is the loss of vision. The fact that this problem has been so slow of solution is largely due to your own overestimate of this limitation, an estimate which arises from the fact that you are apt to give too great a prominence to the place that sight holds in the senses. Vision is not, as our seeing friends sometimes seem to think, the only sense.

The child goes away for a day's outing, and when he comes back he is asked to describe minutely what he saw, but nothing is asked of him as to what he touched. Would it not be well for us to ask ourselves to what degree of refinement of perception the child would attain if we were to devote the same effort to the cultivation of the senses of hearing and touch as we do to the sight?

The problem, then, of the blind child is peculiar simply in the fact that the child is blind. Suppose he doesn't see? Suppose you subtract one sense from five, even though that sense be the greatest, the result is not zero. This takes no account of intuition, the sixth sense, which must ever remain our highest source of knowledge, because thru that sense alone we may behold the invisible, and stand face to face with God.

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* Miss Almeda C. Adams, who made the following eloquent address in response to an impromptu call, has been blind since infancy. She was educated in the public schools, and later in a state institution. After graduation she won a scholarship in the New England Conservatory of Music for securing 1,000 subscribers for *The Ladies' Home Journal.*

Her admission to the Conservatory was questioned because of her lack of sight. She accepted admission conditionally, agreeing to leave at the end of six months if not successful in her work. She graduated with a standing in all subjects above the majority of her class. Later she studied under private instructors in New York City.

Miss Adams has taught vocal music in a state school for the blind, also in a normal school for seeing pupils, and is now conducting a studio for seeing students of vocal music. She is also the teacher of a large chorus class of seeing girls.—EDITOR.

The blind child, then, can do everything that the seeing child can do. I would not for one moment have you imagine that I undervalue or minimize in any measure the great gift of sight. But I do not think that the eye is the only organ by which light may reach the soul.

Now, as you know, in the education of sightless children, the great institutions have done a noble work, and I will not minimize it; but that they work under many and great disadvantages it is impossible to deny. By this system the child is for years kept from that natural home and community life which is the natural need of every child. This is during that entire formative period between the years of seven and twenty-one years of age when the parents should care for the child. Under those conditions a daughter grows to be a stranger to her own mother. At the time when the perplexities of life come upon her, she has no one to carry them to. But most of all the children segregated in these schools are a distinct and peculiar class entirely separate from the seeing world in which they must spend the rest of their lives. As Professor Earl Barnes said yesterday, they get the blind habit, and when that blind habit is once fastened upon them, it is almost impossible to break it. And I wish to say right here that I have never heard anyone discuss the problems of the blind with such clear comprehension as that shown by Professor Barnes in his address of yesterday.

We have to admit certain tricks of manner and thought which seem to be the natural result of blindness. Why? Let the psychologist answer. In a special school, it is very difficult to lead a child to realize the gravity of these mannerisms, or put forth the proper effort to overcome them, whereas, in a seeing school, they all disappear.

Very much has been said here about the danger and mistake of institutionalizing education, by which I judge they meant the individualizing of it. I heard a woman not long ago say that, in her judgment, children were so much better cared for by the state than in homes, they ought to be cared for by the state. I think she is greatly mistaken. In a state school, it is absolutely impossible for the teachers to study the children. There are never enough teachers to man the state schools and so long as our state institutions are in the grasp of political machines, they may not always be manned by the best and wisest.

To the city of Chicago belongs the honor of the initiative in the admission of sightlesss children to the public schools. In 1900, thirty-seven Chicago schools were opened to blind children. The supervisor of this work is Mr. John B. Curtiss, himself without sight. I have not the honor of his acquaintance, but he seems to be a man of large common-sense. Every school has a special teacher whose business it is to teach the point reading and writing, by the use of maps and other special apparatus, and also to study the peculiarities of the children, and to help them by every means in their power. At first they are almost entirely dependent upon her to establish the right relationship between themselves and other students. When, however, the child has thoroly mastered the point reading and writing and becomes accustomed to the apparatus, he or she enters the school-room with the other children and recites with them in everything and does exactly the same work that they do. In grammar and history they have been known to excel. Their problems are done on the Braille slate, and they have the use of maps; a printer is employed whose business it is to reproduce the books used by the seeing children in the Braille or point system. As it is absolutely essential that the blind child should be taught the correct use of its hands, some sort of construction work s taught the younger children, such as making paper boxes and bead work. Personally I believe that the value of bead work to the blind has been vastly exaggerated. As has been said, construction work is designed to teach the use of the hands and should involve movements over large surfaces. Bead work, on the contrary, is crampy; the beads are small, the patterns are small, and the artistic results are smaller still.

One of the arguments that has always been used against this method of education is the cost. Statistics obtained several years ago show that in some thirty blind schools, with 3,300 students, the average cost per capita was $270 a year. In Chicago the last year the cost per capita was exactly $173.08. It may be true of course that the expense of providing special teachers and supplies is greater in the public schools than it would be in proportion in the special schools, but this is more than compensated for by the fact that the cost of the child's board no longer devolves upon the public, but upon the parents, where it should rest. The fact that the cost is not greater will, I think, be more and more largely demonstrated as the work advances and it is found that the children can do more and more work with the normal apparatus. But, you say, this is all very well for a large city like Chicago, where there is plenty of money to hire special teachers and to provide apparatus; but in a smaller city it is impossible. My dear teacher, whether or not it be possible rests altogether with you.

At the age of seven I entered the primary grade of the public school of Urbana, Ohio. I remained in this primary grade for one year, passing the examination successfully, and learning meanwhile to read raised print.

I learned yesterday that there is a lad in Shelby, Ohio, who has been in the public schools there for seven years. He entered when he was six years of age. He has taken every grade without failure and has passed a high grade of examination. He lost his sight when a child thru an accident and the mother went to the primary teacher, a Miss Randall, and asked her to take her boy and she said she would do so. After the mother was gone, the superintendent said to her, "I don't think you realize what you are undertaking; this boy will be a very great charge." Miss Randall said, "I don't see how I could refuse to take that boy, and compel his mother to send him away from home." He said, "Yes, you could refuse to do it; you are under no obligations whatever to do it." Miss Randall said, "Unless you forbid my doing it, I will take the boy." Three months later the superintendent came in to introduce the fire drill, and he said, "You had better ask Wade to sit still." She said, "No, sir, Wade doesn't sit still for anything." She told him to put his hand on the boy in front of him, and after a few times he could do it. He rides a bicycle, rides a pony, and uses roller skates. He is head and front of all the boys of Shelby.

Suppose such a case as this: Suppose that Mary's mother comes to your superintendent, because that is what she would probably do, and says to him, "I can't bear to send my little daughter from home—won't you take her into your schools and do the best you can for her?" Now, the superintendent lays the matter before you as the teacher. Almost the only extra work it would be for you is the teaching of the point system, and anybody with a grain of sense can learn that. How do I know? Well, once when I was a girl, I knew a young man who learned the point system in two hours, all for the sake of writing letters to a girl who couldn't see; and my mother said that if that boy could learn the point system in so short a time for such foolishness as that, any goose could learn it, and I have always taken her word for it.

The point system of reading and writing is a sort of tangible shorthand. It consists of dots very much like the pin holes you used to prick in paper when you were children, and the number and arrangement of the dots make the letters. The slates designed for the purpose can be obtained from any special school for the moderate sum of $1.25.

Unfortunately, there are two systems of point in vogue in the United States, the New York point, and the Braille. The Braille is the European system, which was invented first in France, and with some modifications is still used. The New York point is a modification of the system invented by Mr. Waite of New York City.

I believe that the relative merits of the two are in the proportion of six to half a dozen, and over the two there has been endless jangle, which I firmly believe has immeasurably retarded the education of the blind. It is earnestly to be hoped that there will soon be a uniform type. In the meantime, use the one in vogue in the city where your school is located, and I herewith pledge myself to write a long letter of instruction to any teacher who wishes to learn the point system for the sake of being able to help blind children.

One of the most important features of the education of a blind child must be its physical training. All the conditions of its life are absolutely opposed to the development of normal, physical vigor. We take to a rocking-chair as naturally as a duck does to water, and our seeing friends are always ready to wait on the blind. But the blind child should be urged to join in all the sports of his seeing comrades. When I was going to school as a child, I jealously claimed my place in blind man's buff. Did I ever get hurt? Ask my nose.

These things are true, and therefore, when Mary's mother comes to you, I must ask you not to refuse her request. Perhaps you may be able to find some young woman of leisure in the neighborhood who will be willing to help you; but if not, if this burden and task must fall upon those already heavily burdened, still, dear teacher, must *I cry to you to accept it*, for you know as well as I do that it is only those who are already laden to the water line who can take on additional cargo. My plea is for a normal life for these little sightless children: not segregated; not classed together; not made peculiar; but simply allowed to live out the laws of their being; for, as one of the best women that I have the privilege of knowing said, "We are all just folks," and these blind children are just exactly like other children, with the same dreams, the same hopes, and the same ambitions. To be sure, there may be thirty-nine other children in school; but suppose that each of those thirty-nine children is asked to sacrifice one-twentieth of the time that would be devoted to it—and this would be ample time to give to the sightless child. But you say the school is conducted for the benefit of the normal child. We used to say that society was conducted for the benefit of the strong. Are we going back to the philosophy of John Smith, the philosophy that puts a premium on selfishness; which says that if a man will only serve himself well enough, he will be serving others? What has been the result of that service, let the history of the corporations answer. Will not that sacrifice of that twentieth part of the time be a better sacrifice and a better education for him? Suppose, for instance, that on the playground he is asked to take some precaution and be careful of the sightless child, wouldn't this tend to his highest development?

We have a little girl in Cleveland, four years old, who has been in the Pilgrim Congregational Church kindergarten for some three months, and the teacher says it is impossible for her to discover whether the kindergarten has done the most for this little girl, or whether she has done most for the kindergarten. One day one of the oldest children came to the principal and said, "Do you suppose Edna's papa and mamma would sell her for one hundred dollars?" and he said, "No, dear, I don't suppose they would." She said, "My papa says if they will sell her for one hundred dollars, I can buy her, and I want little Edna for my own." They reach their little hands to you, these children of the dark, and ask not your pity. Pity is the guerdon of the weak—not your mere idle passing wonder over their little achievements. They ask for light, the radiant light of knowledge that shines from within outward and glorifies all life, and when you have granted this boon, what then? They do ask your help, for you are stronger than they. They ask your help in securing positions. They ask your help in making the world believe that they can do the things that they can do.

Will you pardon a personal illustration? I go to a choir director and ask for a position. He says, "Oh, that would be absolutely impossible, Miss Adams; we must have a soprano who reads at sight." And then they get a young lady who hasn't had as many advantages as I have had in some other ways; but she reads at sight, perhaps, but it isn't first sight, or second sight, or even third sight, and so they drill her over and over again, and they imagine that they have a sight reader, and that I a blind soprano would be a hopeless obstacle.

Now, you can correct some of these things, for *we long to stand beside you;* we seek a soldier's share in the struggle that we may win a soldier's crown. For in the battle of life, dear friends, the laurels are not alone for him who succeeds as the world measures success: they are for the one who fights his fight bravely and patiently unto the end, with his face ever toward his foe, with the eyes of his spirit ever open toward the eternal vision. For who hath made the dumb or the deaf or the seeing or the blind? Hath not God, the Lord? And in his name we pledge you to universal brotherhood, until we all come home at last—both we who stand in the shadow, and you who stand in the sunlight—into that fair city where they need no more sun by day nor moon or stars by night, for the Lord God giveth them light.

DISCUSSION

MISS MARY McCOWEN, of Chicago.—We have had a beautiful illustration this morning in Miss Adams, herself blind, standing before us and speaking so eloquently in behalf of the blind child.

I am glad to indorse Miss Adams' statement about the work in Chicago. It is being done very much as she has stated; the blind children enter the classes with the seeing children; they continue their work with the regular classes of seeing children, and graduate with honors, their special work being in charge of a blind man who is, as Miss Adams stated, a man of rare qualifications.

MISS ELIZABETH E. FARRELL, inspector of ungraded classes, Public Schools, New York City.—Special classes, or ungraded classes should be made as nearly unobjectionable to parents as possible. We heard yesterday a very strong appeal or statement in regard to the effect of parental love. I want to say to those who have anything to do with the formation of special classes the special class must be made different from the normal class; it must be made more useful and more practical, and when this is done, there will be no stigma upon the special class. But as long as the special class is made very much like the regular class just so long you will surely get that class called, in a very few weeks or days, the "fool class," or some such name. But if we make the class special in a real sense, and do for those children what has never been done for them, the appreciation of that fact by the family will insure the success of that class in any city and any country.

The special class must have a special teacher. Those of you who are teaching or who contemplate teaching a special class are contemplating a work of which you may be justly proud, for in the near future the special class teacher and special education are to lead the educational thought in the United States. Much has been done already along some lines, and the teachers of normal children will come to you to learn how to do it; to learn rational methods.

Miss Adams, when she said "We long to stand beside you," made a touching appeal. If we keep that thought in mind, we shall come more nearly to treating these people wisely and helpfully than in any other way.

SOME URGENT NEEDS FOR ADVANCEMENT IN THE EDUCATION OF MENTALLY DEFECTIVE CHILDREN

ISABELLE THOMPSON SMART, M.D., MEDICAL EXAMINER FOR UNGRADED CLASSES, BOARD OF EDUCATION, NEW YORK CITY

There is not, at the present time, among the teachers, principals, and school authorities in general, sufficient intelligence as to what a mentally deficient child really is and what a mentally deficient child really needs. These conditions are beginning to show signs of improvement, tho even yet it is no unusual occurrence to have a principal send a child to be examined as eligible for the ungraded class, who has reached the sixth or even the eighth grade in the elementary school. Only a few weeks ago two fine strong lads were sent to me for such an examination. Both had attained to the eighth grade and told me they were doing cube root in their arithmetic; they were really disciplinary cases and their principal, who by the way is a man and physically a giant, submitted them for this examination as an easy means of ridding himself and his helpers of two nuisances. Our honored city superintendent, William H. Maxwell, in one of his recent circular letters to the principals of New York City, meets this contingency by suggesting that, as a rule, "children who are twelve years old or over, and who have attained to the grammar grades (4A-8B) are not to be considered for an ungraded class." Many times it is the "bad" boy or girl who is elected for an examination by the teacher or principal, to the exclusion of the real defective who is in need of the attention of such a special class.

I would suggest that, in every city contemplating or maintaining classes for the defectives in its public-school system, a course of lectures with supplementary reading be given by competent people, attendance upon which should be made compulsory for principals and heads of departments. Also that a comprehensive course of instruction in this subject be given in all normal and training schools for teachers, in which course the medical expert as well as the psychologist shall give some of the necessary enlightenment. The physiology, hygiene, and pathology of such conditions as are found among the mentally defective can be adequately taught only by the man or woman scientifically trained in medicine, and these are exceedingly important branches of the subject to enable the teacher to recognize certain signs and stigmata, know something of their significance, appreciate some of their causes and possible effects, and see that they are speedily and properly treated. A special course, therefore, in the teaching and management of the mentally defective children should be arranged for in all the representative training colleges and normal schools, where those who feel a special inclination toward this department of education may receive the proper equipment.

In our own city of New York, for two years the School of Pedagogy, New York University, has attempted such courses, which are still in the constructive stage and only partially doing their work. During the past winter, for one semester, Teachers' College, Columbia University, organized a psychologic course, which must expand and take on a greater breadth of view if it is to be considered worthy. And an excellent series of lectures on the psycho-physiologic side of the problems was given by Doctor Mary Sutton Macy, thru the medium of the courses conducted by the New York City Teachers' Association. These are all steps in the right direction and as such are a decided gain, but we need these and more. It is a burning question how our work is to progress without properly equipped teachers, and how teachers are to be adequately trained without access to special schools or classes for this particular purpose. There are so very few practical teaching courses offered and some of the best of these are only held for a few weeks in the summer! It is a most lamentable fact, that thirty or forty individuals may enter an examination for license to teach these children and perhaps as many as ten pass the preliminary theoretic, written test and out of this small percentage not more than three or four be able to stand the practical, oral test.

Teachers are sorely needed—teachers whose lives are in a great measure consecrated to their pupils; who are willing after a day of fatigue and trial, necessitating the expenditure of a vast amount of patience, to visit the homes of the unfortunate little ones to obtain, many times to plead for, the consent of the parents or guardians to permit some treatment or operation, necessary to insure the child a reasonable amount of health, sight, or hearing. We, in New York, are very fortunate in having a faithful few who are thus consecrated and doing all the good possible in as many ways as they can for their pupils. We have one teacher who during the last year has personally interviewed the parents and physicians and in the greater number of cases gone with the children while tonsils or adenoids were removed, and has met with such success that only one case in her charge remains untreated at present, and that of a little one whose heart at the last report was not yet able to stand the anaesthetic. This teacher has now begun her same systematic work to have the defective teeth treated, while many have been her visits to physicians for medicines and tonics for the general upbuilding of her little pupils. To say that she is an inspiration and source of encouragement to all who come in contact with her in the work is but a mild way of expressing our feelings. Several others of our staff of teachers are following closely in her tracks and a few of them are laboring under great difficulties among our large foreign population, difficulties which are hard to surmount, but we need more teachers of the same kind.

There should always be a very close co-operation between the physician and the teacher of the mentally defective, and the children themselves must be under a more or less constant medical supervision, if their successful mental and physical training is to be maintained, for their mental progress depends in a singularly marked degree upon their physical health. That a medical examination is an essential to the proper classification, as well as treatment, of these children should be a self-evident fact; and that the examination should be made by a physician, a specialist in mental and nervous disorders, who has made a considerable study of the pedagogical problem involved in the education of these children, seems an urgent need. There are those who claim that the psychologist is all that is necessary, but surely that is a very narrow stand to take! The psychologist is needed, unquestionably, but ordinarily what does he know of the physical life and physical needs of the child, or—for that matter—of the mental life either, where pathologic conditions exist and need to be eliminated? The physician who makes a specialty of the diagnosis and treatment of mental and nervous diseases never does so until he or she has been trained in psychology, and has thus added to the ordinary medical armamentarium and practical training in histology, hygiene, physiology, and pathology of brain and nerve tissues the theoretic training of facts and deductions in the science of psychology. Also the physician, because of scientific knowledge of embryology and growth, both physiologic and pathologic, is better fitted to appreciate the value of the external stigmata as evidence of the stage at which brain development was checked or arrested, and to estimate the chances of improvement and indicate its lines.

If the psychologist, as such, were really all that were necessary to the proper examination and diagnosis of these cases of mental defect—as some people of intelligence would have us believe—why do we not find more of them as superintendents in our resident schools for feeble-minded, in our sanitaria for mental cases, or in our asylums for the idiotic and insane? The physician appears still to be a necessity to treat these cases and no reputable physician will treat a case which has not come up for personal examination and diagnosis; therefore it saves time to have the competent physician make the diagnosis in the first place. It may also be noted that, as a rule, the "say so" of the physician has more weight with the parents and more influence on the lay mind in general, than the word of anyone else; there are a few cases—exceptions to the general rule—in which the supporting advice of the teacher or principal, who is known to the family, adds valuable weight to the word of the strange doctor, but ordinarily it is the word of the physician that really means the most to the parents, and among our foreign population, it is the dictum of "der Herr Professor" or of "die Frau Doktor" that is listened to, and heeded! Another point to be considered is the debt we all alike owe to the invaluable literature published in many lands and tongues on the subject of the feeble minded, the mentally deficient children, *les enfants rétardaires, die geistigzurückgebliebenen Kinder*. The greatest bulk of this literature comes from the pens of scientifically trained physicians, Bachelors or Doctors of Medicine all of them, some of them possibly also Doctors of Philosophy, but little of the writing is attributable to those who are simply psychologists!

At the Second International Congress on School Hygiene held in London last August (1907), and of which I was privileged to be a member, a section was devoted to the consideration of the problems in the education of the feeble minded and the two gentlemen who were most active and prominent in the meetings, which were held morning and afternoon daily thruout the week, were two physicians, Doctors G. E. Shuttleworth and R. Langdon Down. The cry of the Congress was that of progressive science everywhere today, "Prevention!" Many suggestions were made, in the section I spoke of, and many plans discussed, which might lead to the prevention of an increase in the number of mental defectives, the prevention of the reproduction of such children and the prevention of those already alive from living in freedom on the street. Prophylaxis, preventive treatment! These are our needs in this country as well, and preventive treatment must be understood to imply preventive legislation!

What becomes of the boys and the girls of this class when they leave our schools? Boys and girls mentally, morally, in every way, unfit to become free agents! The answer inevitably is: "They go on the street!" Many of the girls are seduced by vile men and abandoned to a life of misery and shame, to the reproduction of their kind, and ultimately to fill our workhouses and penitentiaries. The major part, if not all the young criminals, who fill our parental homes and throng our children's courts are either mentally or physically defective or both. How much less expense to the state—and it seems a shame to an intelligent, God-fearing people, that the element of money plays so large a part in such humanitarian propositions as this—how much less expensive would be the securing of a sufficient number of proper sites and buildings, where these unfit might, in colonies under moderate supervisory control, earn their living honestly from the start, and by the sale of their own produce realize for themselves and their colony a neat yearly income. In a comparatively short time these colonies should become self-supporting and the state would be burdened with fewer criminals, society shamed by fewer mentally defective mothers and fewer feeble-minded children without a known father. Miss Dendy of Sandlebridge, Manchester, England, made an earnest plea at the London Congress for the mental defectives of procreative age and remarked that the inmates of the boys' home and school who were eighteen or nineteen years of age "would all have been fathers by this time, if they had been living out in the world."

We need legislation which will give us authority to act in securing the after-care of each child who is a true defective. We need legislation which *will* secure *us* authority to act when a child is in urgent need of medical or surgical treatment. We need legislation which will give us power to protect the defective child from ignorant, superstitious, or indifferent parents and friends. We need legislation which will protect the state from the illegal claims and expenses for aliens, children or adults who are defective.

When a foreigner comes to our shores he should be given to understand that he must submit to having his children cared for physically; that is, if the little ones need tonsils or adenoids removed it must be done; if glasses are required they must be found, or the children cannot remain in the country. The alien comes to America for the avowed purpose of bettering his condition socially and financially; he expects to have his children educated to become American citizens and to be protected as such in the future; therefore the government that is to foot these bills should reserve to itself the privilege of insisting upon the insurance of good health and physical well-being to its future citizens and thereby secure to itself the reasonable expectation of units whose physical stamina shall be such as to warrant a reasonable degree of social efficiency; this, within limits, the government has a right to demand, to expect, and to obtain.

It is a flagrant disgrace to our laws and authorities that any child should, four weeks after its arrival in this country, be brought before an examining physician for mental defectives for examination as to its eligibility for special education. When such children are found to be in need of relief for enlarged tonsils and adenoids, the parents are summoned and told that the children need treatment to improve their health and their efficiency, but we are often met by their flat refusal to grant their consent and we can do nothing. The municipal authorities, sooner or later, have many of these cases to deal with, because, as is well known, these children become incorrigibles. Arrested first for some trivial offense, too often for stealing a loaf of bread to stay starvation, the city has to meet the expense of maintaining courts and institutions fitted to handle such cases. A few thousand dollars judiciously spent in making new laws to meet these conditions, or in enforcing old laws to meet the needs of the country in handling the hordes of immigrants, would be the cause of our feeling, within a few years, that a new era had dawned on these United States.

We need more rigid inspection at our ports of entry, and a force of medical inspectors and examiners sufficiently large and adequate to warrant a rapid following up of all cases to insure the carrying out of all remedial measures needed. No mentally defective child or adult of alien birth should be permitted to land in the country, or, if landed by accident or fraud, allowed to remain here to become a burden to the state. I have in mind one particular case which came to my attention very recently. A boy, whose father had come to New York many years ago and whose mother had been here for five years, had remained with relatives on the other side, and had several times been refused by our agents there. Eventually friends of the family came over and in some way managed to bring this boy along, his parents swore falsely and the boy passed through Ellis Island and came into New York. I met him within a very short time of his arrival in a lower East Side school, where he came to me, with others as candidates, for admission to the ungraded class. The history of his case since entering the school was that of an idiot; he groveled about the floor making noises like an animal, his habits were bestial, and in every way he showed himself to be mentally irresponsible. He would not be received into any free state institution because he had not been in the country for six months, and efforts were made to have him deported; when last I heard of the case, he was still in New York, and "an investigation was being made of the case by the authorities at Ellis Island!" All this trouble, inefficient help, and unnecessary expense, because a fraud had been perpetrated and we had apparently no law to meet such a case, or the laws enacted were not enforced.

We need an after-care committee which shall be made up of those who know the work being done and its needs, and who will do all in their power to place the arm of state protection around the life of every defective boy or girl, man or woman, within the danger limit, or likely to reproduce mental defectives. Much money has, at many times, been spent and interest manifested in the search for new planets or archaeological relics, and we spend public money freely to found art galleries and build museums. All these things are valuable but not immediately of practical use in bettering the race; but when we propose to study children in order to gain an insight into their natures and search out the causes of defects to make possible more effective protection and assistance in helping them to be good citizens, men who would spend money freely to gaze at sun-spots or collect fossils raise the utilitarian cry.

We need more intelligence upon the subject of mental defectives, first among educators, and then on the part of the public. Such improvements in means and methods of handling these problems as seem desirable are only to be obtained by widespread and intelligent public sentiment acting upon the legislative bodies; in all cases the public which provides the money makes the laws, and progressive laws can only be obtained by a progressively educated and enlightened public mind regulating the disbursement of public moneys and interests.

We need a greater number of specially trained teachers and more medical examiners who have given special attention to the pedagogical as well as the medical side of the problem, for it was heartily agreed at the London Congress that the ordinary physician was no more competent to handle the special medical conditions than was the ordinary teacher to cope with the special problems of instructing these children.

We sadly need enthusiasm, possibly not so much in our immediate ranks as we need to arouse it in those who are hovering around our work, only half-hearted concerning results, and in those who are at present ignorant of our work and purpose; and we must keep constantly before us the motto: "Nothing great was ever achieved without enthusiasm!"

DISCUSSION

GERTRUDE VAN ADESTINE, principal of School for the Deaf, Detroit, Mich.—One of the things which every normal boy and girl in our commonwealth may demand is the privilege of an education, not as a charity—but as a birthright. We, as American citizens, are proud to grant this privilege. If the results of our efforts fall short of our expectations, it is because, in our anxiety to provide for the needs of pupils of the larger number, we have overlooked the needs of the individual pupil. If the opportunity to obtain an education is due the normal child who has all the avenues of his mind open thru perfect senses, how much greater should be the demand of the individual who is handicapped by some physical or mental defect. I have in mind especially those who are ordinarily termed deaf.

This classification may include all pupils who, because of their lack of hearing, can not profitably do the work of the grades in classes with children who hear. The degree of deafness may vary from a slight defect to total absence of all sound perception. The results of such conditions vary from imperfect speech to unintelligible articulate sounds.

Deaf children are dumb, not from lack of hearing, but from lack of instruction. With perfect vocal organs they are dumb from ignorance of what to do—and teachers in the regular classes can not teach them to speak, for the same reason. The pupils must therefore be placed under the instruction of special teachers that they may be taught speech reading and articulation—the dumb, that they may learn to speak, and those who speak imperfectly, that they may regain and retain their speech.

Since 1867 speech-reading and articulation have been successfully taught to the deaf and the results of today testify to the value and permanency of this method.

To Wisconsin belongs the well-merited honor of establishing deaf schools with public state aid, as a part of the public school system.

This is known as the day school system and has since been adopted in Illinois, Ohio, Michigan, and California. These oral day schools at once sprang into favor and it will be readily seen why, when we consider their advantages.

First, they are speech schools. The pupil is made to feel that speech is an instrument of thought. He is trained to think and speak in practically the same way as his hearing friends, which at once places him on their plane in regard to vernacular and literature. This makes the school at once popular with the parents and public generally.

Second, they are part of the public-school system, which fact emphasizes their work and separates them in the public mind from all special or charitable institutions.

Third, they are day schools. The children attending them go back and forth to the daily sessions with their hearing brothers and sisters.

The parents naturally prefer to keep their children at home, especially when they are young, and particularly so, since they have the opportunity for speech at home and school. The state—willing tho she may be to assume the responsibility of a mother to these children under her care—can never take the place of the home. The influence of the home in the training of children is very powerful and cannot be overestimated.

Every means that will bring the deaf child into closer association with hearing children of his own age will promote happiness and success in adult life. Association in the plays and games of hearing children is an important element in bringing this about. Constant association with normal children will accustom the deaf child to the society in which he is to live in the future.

Just to the extent that the education of the deaf is perfected and they are enabled to mingle in the world with hearing people, just to that extent will the deaf approach the normal.

Fourth, this system of day school carries the school to the children, and not the children to the school. The classes are small and the pupils receive more individual attention than in the larger classes of the institutions.

Statistics go to prove that in states which have oral day schools the attendance is greater proportionally than in states where the system is not yet adopted.

The pupils in these schools have the same advantages as the hearing students. They pursue the same course of study and have the same industrial work. They have the same examinations for promotion from the eighth grade, enter the high schools with the hearing boys and girls, and complete the course with honor to themselves and credit to their teachers.

If we can give the pupils the ability to earn and enjoy a dignified livelihood, we have done much that is worthy of merit. It can not be done quickly but requires patient, persistent, and well directed effort.

The teachers of the deaf pupils and those of normal pupils could well profit by interchange of ideas. Had the grade teacher the knowledge of the mechanism of speech and phonics the special teacher must possess, the imperfect speech of our foreign pupils would be improved.

It is but little more than twenty years since the first oral day school in the United States was organized, and the success of these years is cause for congratulation. What the next twenty years may bring forth is beyond our ken; but if future success may be measured by past achievement the deaf boy of every state will share and share alike with his hearing companion in all that the word opportunity signifies.

Walter S. Cornell, medical inspector, Department of Health, Philadelphia, Pa.—There are two or three things in connection with the talks that have been given that I think might be emphasized. The first is, I presume, that most of us are really teachers of grades and not specialists and that we have come here to learn that the grade teacher can do a great deal by cultivating the exercising of ordinary powers of observation, and also by developing the spirit of criticism, so that she does not need to accept, without questioning, someone's diagnosis of a child's condition possibly made offhand, and very possibly erroneous. We only have to go back to the study of Darwin's life to realize how a little observation makes a great difference in looking at the things around us.

These children who are first physically defective and secondly mentally defective, are, many of them, improvable to a great degree. I made a study about a year ago simply on the side of the physical defect in relation to the child's eyes and learned in a series of examinations of about two hundred and fifty children that the child with poor eyesight made six points less average in classes than the child with good eyesight. Those children with fair eyesight showed that their scholarship came intermediate between those two classes. This, of course, is primarily on the side of the physical defect. So you can see that when you begin with physical defect pure and simple you are really coming to the edge of the mental defect. The scholarship of children is largely dependent upon their physical condition. While children who are dull have remedial defects and many can be brought back to normality, still there is a difference between the dull child and the backward child who has physical defects. The child who has physical defects will suffer a lack of brain development from disuse, from lack of function, which puts that child ultimately in the backward class. In the case of a person who is blind, we find that certain physical centers never develop for the simple reason that the associated tracts between the eye and the physical vision, those centers, are not used. With those children who are cross-eyed, the turning of an eye means that the eye has not accurate vision. Of course, that eye may be straightened years afterward but the vision is likely to remain as obtuse as it ever was. The child who goes thru school for five or six years with snuffling catarrh and adenoids is missing a great deal that is going on in life. These children cannot be brought up afterward simply by a surgical operation; that is expecting too much. So I say, don't think that neglect in early life may be remedied by someone subsequently. Neglect of remedy at the right time may be the cause of a child remaining subnormal all its life. As to the administration of these classes, I think that the primary thought is how shall these children be arranged and grouped systematically to the greatest advantage of these children. Are these children so peculiar that association with normal children does them no good? Are they so slightly peculiar that the main trouble is they are a drag to the other children and on the teacher's energies? Now, the child who is simply dull, who is just defective enough to ruin the teacher's good nature and spoil her work and drag her work with the other children, should not be taken off to some institution nor to some special school where it is mingled with incorrigible children with bad habits, many of them secreted from the teacher. This child should be in an ungraded school where, for the purpose of instruction, it is placed with its own kind, where it does not lose hope, and where the child is not stigmatized. The door should be kept open to the regular grade, so that when that child does improve, it may be put back and you may have a normal child again.

Miss Adelaide Rudolph, librarian for the Department of the Blind, Cleveland, Ohio.—The work for the blind began in the Public Library, by having a small collection of books, and by the appointment of an assistant to take charge of those books in the afternoon and devote a good deal of her time in the mornings to visiting the blind of the city, and asking them to come to the library. A series of Wednesday afternoon meetings for the blind was instituted in the library. The librarian, or some volunteer, would read to the blind who came. Also a series of Friday evening entertainments for the blind was held at the Goodrich House.

It has always been the policy of the library only to initiate those forms of work which are not peculiar to the library, and as soon as others can take up that work, to give it into their hands. Since this Society for Promoting the Interests of the Blind has been organized we have given much into its hands and now are devoting ourselves to the legitimate work of the library, making the book as easily and quickly accessible as possible, and enlarging the circle of readers.

We have a collection of about three hundred volumes. Unfortunately, these are in many different types. We have in this collection line letter, English Braille, American Braille, and New York point. As most of the readers of this city are acquainted with the New York point, our largest collection is in that; but we are hoping that others may learn and take advantage of the gifts that we have had lately of American Braille from Philadelphia, and English Braille from a kind lady in Chicago.

Miss Marian Campbell, agent for promoting the interests of the blind.—The work which we are doing for the blind is much more interesting to see than to hear about and we shall be very glad to have you see it at the Goodrich House. Our workshop is open every day, and the blind men and women are there at work, with a seeing supervisor. This work began in the library, but we found it was quite as necessary to help the people to industrial work as to intellectual enjoyment.

One of the largest benefits that can be derived from allowing special children to work with the normal children in the public schools is the benefit that comes to us, members of the normal community. That is a very selfish thing to say, but further than that it reacts very unselfishly. It reacts directly upon the special child later on, when he comes to mingle as an applicant for an industrial opportunity in the same community; then he meets the people who were brought up with him in school, and who know not his limitations, but who know his opportunities and his advantages, and the efficiency of his work. It seems to me that we cannot overemphasize the effect that must come to the community from the education of these children in the public schools with normal children, so that, by and by, in this community, in which the blind or the deaf child has to stand competition with the normal child, the normal child shall have the right attitude toward him.

DEPARTMENT OF INDIAN EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—L. H. COMPTON, superintendent of Indian School, Tomah, Wis.
Vice-President—HARWOOD HALL, superintendent of Indian School, Riverside, Cal.
Secretary—ESTELLE REEL, superintendent of Indian Schools, Washington, D. C.

FIRST SESSION.—MONDAY MORNING, JUNE 29, 1908

The Department of Indian Education met in the Euclid Avenue Baptist Church, at 6:30 A. M., with President L. M. Compton, in the chair.

The following program was presented:

Music: Organ solo, William E. Roberts.
Vocal solo, Walter Kilrain.
Prayer: Rev. A. C. Ludlow, pastor, Miles Park Presbyterian Church.
Greetings: W. H. Elson, superintendent of schools, Cleveland, Ohio.
Hon. Edmund A. Jones, state commissioner of common schools, Columbus, Ohio.
Rev. R. H. Westwood, assistant pastor, Euclid Avenue Baptist Church.
Responses: President L. M. Compton, superintendent, Indian School, Tomah, Wis.
Estelle Reel, superintendent of Indian schools, Washington, D. C.
School Commencements: Practical demonstrations by students from Carlisle Indian Industrial School, Carlisle, Pa.
Rug-weaving and designing—Angel DeCora Dietz, instructor.
Oration: "My People"—Elizabeth Penny, illustrated with six full-blood Nez Percé Indians in costume.

SECOND SESSION.—TUESDAY MORNING, JUNE 30, 1908

Music: Organ solo, Geo. C. Emerson.
Song, "America," by the audience.
Contralto solo, Minevieve O'Connor.
Indian songs, by class of Indian pupils.
Song: "Two Little Sugar Beets," by Bertha and Angelina, pupils Mt. Pleasant Indian School, Mt. Pleasant, Mich.
Indian Solo, "Zuni Lover," Lucille Chippewa, pupil, Mt. Pleasant Indian School, Mich.
Addresses:
"Utilization of Experience in Home Environment," Ella Flagg Young, principal, Chicago Normal School, Chicago, Ill.
"Progress the Indian Is Making Toward Citizenship and Self-Support," John H. Seger, Seger Indian School, Colony, Okla.
"How Far Are the Principles of Education Along Indigenous Lines Applicable to American Indians?" Dr. G. Stanley Hall, president, Clark University, Worcester, Mass.
"Horticulture and Landscape Gardening," R. H. Hoffman, florist, Carlisle Indian School, Pa.
Demonstration lessons, with classes of Indian pupils; Sugar Beets; Cooking; and Household Cleanliness; by Alice M. Kingcade, principal-teacher, Mt. Pleasant Indian School, Mich. Store Methods, by Thomas J. Jackson, superintendent, Nett Lake Indian School, Tower, Minn.
Oration: "My People," by Elizabeth Penny, illustrated with six full-blood Nez Percé Indians in costume. (Repeated by special request.)
Medley: Scranton String Orchestra, J. Oertli, leader.
Informal reception, at Euclid Avenue Baptist Church, to Mrs. Garfield, wife of Honorable James Rudolph Garfield, Secretary of the Interior.
Complimentary luncheon to the delegates of the Department of Indian Education, in the banquet hall of the Euclid Avenue Baptist Church.

The following resolutions were adopted:

Resolved, That we are heartily in sympathy with the practical reforms and improvements that have been inaugurated in the Service under the administration of the present Secretary of the Interior, Honorable James Rudolph Garfield.

Resolved further, That we indorse the stand taken by the Commissioner of Indian Affairs, Honorable Francis E. Leupp, in extending the day-school system, that young Indian children may not be separated from their parents; that we will endeavor to encourage the preservation of the native arts, crafts, legends, folklore, and songs of the Indian; and that we will strive faithfully to carry out the policies he has outlined.

That we commend the unceasing efforts of the Superintendent of Indian Schools, Estelle Reel, to give the Indian child an education that will be of practical value when he takes up the responsibilities of citizenship.

Resolutions of thanks were then adopted and the Department adjourned.

ESTELLE REEL, *Secretary*

PAPERS AND DISCUSSIONS

ADDRESSES OF WELCOME

WILLIAM H. ELSON, superintendent of schools, Cleveland, Ohio, welcomed the department on behalf of the school authorities of Cleveland. He was followed by

EDMUND A. JONES, state commissioner of common schools, Columbus, Ohio, who welcomed the department on behalf of the state educational authorities. Commissioner Jones also said:

One hundred years ago a company of New England men and women crossed the Alleghany Mountains, floated down the Ohio River to the mouth of the Muskingum, and founded the settlement known as Marietta. Others soon followed and settlements were established westward. These early settlers soon found that the people of another race were occupying this territory and were ready to dispute its possession with them.

Many conflicts ensued, daring adventures were experienced, and many lives were lost on both sides before the Indians were finally driven beyond the Mississippi River. No remnants of these tribes are now to be found within our borders and we have no Indian reservation in Ohio. But they have left behind them a perpetual memorial: their names are upon nearly all of our rivers and many of our counties and villages. So long as the Maumee and the Cuyahoga flow into Lake Erie, the Walhonding and Tuscarawas unite to form the Muskingum, the Scioto and the Miami pursue their winding way southward and discharge their waters into the Ohio: so long shall we be reminded of the fact that these Indian tribes once roamed over our fields, hunted thru our forests, and paddled their canoes up and down our streams.

However we may differ in our opinions in reference to the treatment of the Indians by the whites during the period of our colonial history, we are agreed, I am sure, that in these later days the remnants of the tribes are rightfully the "wards of the nation," and our government is under moral obligation to provide for their welfare and progress.

The most promising field of effort is certainly with the Indian youth. To give them such advantages and such training as will enable them to become useful members of society; to give them a thoro knowledge of the English language and of the fundamentals of a common-school education, and especially such knowledge of farming, cooking, and general housework, and such other industrial training as will make the Indians self-supporting and good law-abiding citizens, is a great and important work.

I have been interested in the reports of the Commissioner of Indian Affairs and the Superintendent of Indian Schools. From these reports I find that 30,500 Indian youth are enrolled in the various kinds of schools now under the direction of the Department, with an aggregate daily attendance of 25,800.

I have been pleased to note the progress that has been made in Indian education along right lines, as it seems to me, in the last few years—the emphasis placed upon the home; the prominence given to industrial training and to such features of this training as will best prepare the Indian youth for his particular work in life; the encouragement given to day schools, on account of the good influence exerted by such schools over the adult population. Commissioner Leupp in his report for 1907 says that it seems to him an infinitely wiser plan to carry civilization to the Indian rather than to take the Indian to civilization.

There seems also, in the recommendations made and the plans proposed for the future, to be a looking-forward to a time when the greater number of schools now in charge of the Department may become a part of our public-school system.

REV. R. H. WESTWOOD, assistant pastor, Euclid Avenue Baptist Church, Cleveland, Ohio, followed Commissioner Jones with words of welcome, and was followed by

L. M. COMPTON, president of the Department and superintendent of Tomah Indian School, Tomah Wis., who returned the thanks of the Department for the welcome extended. He also said:

Among the members present I recognize faces who have long been in the Indian service. To them especially, and to all, I wish to say that in the past few years much has been accomplished in this service. The Secretary of the Interior, Hon. James Rudolph Garfield, who is from this state, among the many stupendous tasks that have come to his department, has not forgotten the Indian, for which we are truly thankful. The present administration of Indian affairs is strictly a business administration. Our most able commissioner is a man who not only believes in doing things himself, but he firmly believes that the time is fast approaching, and in fact has come to some of our Indians, when they must stand for themselves.

We will admit that in some cases in the early history of the country the Indians had harsh treatment, but we must also admit that for many years past the government has been spending millions of dollars upon them, and in most cases the debt, if there was one, has long since been wiped out.

The Indian must learn that he cannot expect to be supported and propped up, and it is our duty as teachers to make our pupils understand that they must rise thru their own individual efforts, and they must be brought to a full appreciation of the fact that where there is lack of such effort they will most certainly fail. This, taken together with an earnest effort on our part to impress upon pupils' minds the very great importance of meeting obligations, the value of honesty and sobriety, in other words the teaching of true, honorable manhood and womanhood, is the most important work we can do among them.

It is far more important that our pupils become good, honest, law-abiding citizens, have sufficient knowledge to manage their homes, which must necessarily be simple at first, learn to till their land, and care for their stock, than it is to give them a very faint idea of higher education and the frills of civilization and thereby lay a foundation for that discontent and unsteady purpose which we know exists among many.

Let us not train them in a direction that will lead them away from the environment for which nature and long years of association have eminently fitted them, but rather teach them to improve their condition at home and show them that to do the work which lies at their hands in an honest, manly way is the most certain road to success and happiness.

ESTELLE REEL, general superintendent of Indian Schools, Washington, D.C., joined in responding to the addresses of welcome and said:

The Secretary of the Interior, Hon. James Rudolph Garfield, of your state, under whose authority this meeting is held, regretted that he could not be with you; he is deeply interested in the education of the Indian, and the results achieved are due to his willingness to assist the Commissioner of Indian Affairs, Hon. Francis E. Leupp, who has direct supervision of all Indians, and who outlines the policies. He has made a close study for twenty years of their needs.

We want to remember that useful work is the keystone of success, and that while we must give the Indian a practical education let us not attempt to transform him into something else, but model our instruction to meet his immediate necessities, in order that he may become self-supporting in the shortest possible time. To do this, we must study the home-life of these children, and closely connect our literary and industrial work. At tomorrow's session demonstration lessons will be presented, showing how these branches may be correlated.

It is gratifying to see so many Indian workers present. Many of you have had long journeys by stage across the deserts, and we want to assure you that your attendance is appreciated by the office. We hope that you will attend as many as possible of the general sessions of the National Education Association, and of the various departments, and get in touch with the outside world.

UTILIZATION OF EXPERIENCE IN HOME ENVIRONMENT

ELLA FLAGG YOUNG, PRINCIPAL, CHICAGO NORMAL SCHOOL
CHICAGO, ILLINOIS

The Indian race with its tribes and the Caucasian race with its nationalities exhibit many differences in physical characteristics, modes of life, customs, and beliefs. These differences, however, are due to fixed, unvarying conditions in the environment. We are all sufficiently acquainted with the work of the ethnologist to have a clear idea of the influence upon a race of its own responses to the environment in which it lives from generation to generation. Difference in response to the unchangeable conditions in different environments is that which distinguishes races, and also the details of your problem in teaching from mine.

On the other hand, we are familiar with the conclusion deduced from studies in anthropology and related subjects, that the nature of the soul of mankind is as unvarying as is the nature of the geographical environment. The Indian and the white man are both moved by emotions of pleasure and pain, of gratitude and revenge: are swayed by the stormy passions of love and hate. Each builds up out of his experiences and ideas a complex being which he calls "me," "I," "myself." All thru life here this will is manifesting this "I," "myself," to friend and to foe by its deeds. If asked to define "myself," the Indian and the white man answer: "I am myself."

Long before the student of anthropology began his studies, the great heart of humanity had been opened to the truth that the nature of the soul of humanity is fundamentally the same in all races. Without some conception of this truth civilized nations could never have developed their great schemes of foreign missions, the United States government would not today be conducting its Indian schools, and you would not be devoted teachers in those schools, some of you because of the impelling power of the humanitarian spirit, and some because of fidelity to the good of your own people. All that I shall offer here today is centered around the idea of universality of the nature of the mind of man.

In turning to our common ground in education—the identity of the nature of the soul of all races—the first problem that confronts us is one that is set for every man and woman who would be a teacher. It is the question of the means by which a soul is best nurtured. This problem of the nurture and development of a soul to its fullest possibilities divides educational theory and practice into the old and the new education.

The old education assumes that the teacher knows first what the learner needs to know and that the soul of the learner is nourished and developed by the acquisition of that knowledge. The new education acts on the assumption that a teacher makes such an environment in school that the mind of the learner is stimulated to use its own experience to acquire and capitalize knowledge, and that the soul is nurtured thru that activity and by its fruits. All over this country, wherever a thousand, a hundred, or only ten teachers are grouped into a system of schools or a single school, you will find the same conditions as exist in the Indian schools: some of the teachers preach and practice the old education; some preach the new and practice the old; and some preach and practice the new.

From one point of view the goal of your labor is before you in extreme simplicity. It is to fit the children for citizenship in a different social organization from that in which their ancestors have lived. This means, certainly, that they shall acquire such habits, customs, and ideals as are foundational in present-day American life. We will accept the theory that the current social ideals of a people are the customs of the life of that people under conditions which have been influenced by them and by nature. Immediately, in the minds of some, the question arises: How can you inculcate the customs and ideals of a people of one civilization in a people of a different civilization except by knowing what should be taught it? and further: Can one have the Indian children experience all that out of which were developed the social ideals of the American people?

These questions force themselves upon many of the teachers of the children of the foreign-born poor who are coming in large numbers to this country. The second question, in slightly modified form, is before the teacher of the American-born children. They are not hard for the new education to answer. Children come to school with the experience of the home and the neighborhood, and the teacher creates an environment that shall integrate the better part of the home environment with that of the school. The natural, simple, healthful means of growth are in this way supplied by the school. They are the conditions under which a people has lived from generation to generation. And yet, because of a failure to take advantage of those conditions within the whole that make for progress, that people has commenced to retrograde. Therefore, for the school to take environing conditions and make the valuable ones, the suggestive ones, the means that will open up better ways of doing, living, and thinking, is to educate thru experience. But to bring into the school extraneous conditions, whose relation to environing conditions is vague, is to impose the experience of one people upon another. The vagueness is there because the conditions brought in have not developed out of, or been idealized from, the familiar. But, worse than the vagueness is the contempt for one's family and race which is generated by an education that disregards the best elements in them. This blunder is committed very generally in schools to which children of foreign-born parentage are sent in this country. What is the result of this blunder? Instead of knowing two languages and so, even if one language is a dialect only, possessing more fluent speech, the children are ashamed to speak the foreign tongue; instead of idealizing the customs brought from foreign shores and weaving them into the customs acquired in this new country, the children are ashamed to have their school friends meet the parents with their foreign ways, and so lose the pleasure of building up a happy social life at home and often form acquaintances and associations less good than those of the home circle.

I ask you if it is true that the life of the Indian child is diverted from direct relation to the home environment and is affected thereby as are the life and character of the child of the poor, foreign-born parentage?

What is it to idealize the environment? Is it to paint a false picture of the home or the village, so that indolence and poverty shall be glorified? No. It is to search for a hopeful, if possible, a good thing in the environment, and to give it a suggestive setting by making it a part of a better picture, object, story, or condition, which will arouse the mind to an idea of making the good better. The successful teacher of cooking does not begin by introducing a menu consisting of strange dishes. She takes the familiar dish and makes it more palatable, and thus gradually leads the young people to trying variations of the customary diet. The successful teacher of manual training finds out what the children or young people would like to make for their own use, and later awakens the taste to an appreciation of better skill and better art in the making of things. To set before the learner that which has perfection in construction and form, and ask to have the exactness, the art duplicated, is to begin at the wrong end. For the teacher of Indian, American, or southern European children to ignore everything that has nurtured them up to the day of their entrance into school is to set at naught that which should be the beginnings of present-day forces in civilization. These forces are the idealization of a primitive experience.

This view of the building-up of the powers of the children in the school from the experience gained originally in the home makes necessary a study of that which has stimulated the children to activity and would develop the power and the ideals of modern times out of that capital. It would put the capital out at interest. It would help the young to glimpse a better view of life out of the experience in the home with father and mother, brothers and sisters: with the food, the clothing, the shelter, and the customs of its own race.

PROGRESS THE INDIAN IS MAKING TOWARD CITIZENSHIP AND SELF-SUPPORT

JOHN H. SEGER, SEGER INDIAN SCHOOL, COLONY, OKLAHOMA

My work began among the Cheyenne and Arapahoe Indians of Oklahoma, in 1872. They were then classed as wild, blanket Indians; they lived by hunting the buffalo, and regarded white people as their enemies. Altho the government had established a beef and ration-issue station, they preferred to hunt the buffalo for a livelihood. Since my advent among them I have helped to bury six white persons whom they have killed, and at least one Indian gives me credit for saving his life, while I thank two Indians for performing the same office for me.

For five years I lived with my family fifty miles from white neighbors, and the same distance from a postoffice. The Cheyenne and Arapahoe Indians had no desire to be civilized when I first made their acquaintance. They claimed that the Great Spirit had created them Indians and had given them the buffalo for food and clothing. It is a hard matter to civilize a people when they do not wish to be civilized, or to teach a people when they do not wish to be taught. White hunters encroached upon their hunting-grounds and in a few years practically exterminated the buffalo. This was the cause of the Cheyenne war of 1874, lasting nine months and reducing the Indians to a pitiable condition of poverty before they surrendered and came into the agency. Subsistence was now a serious problem for these Indians, and they became more willing to receive instruction in farming and other work. The Cheyennes for the first time put some of their children in school anp seemed fully convinced that their livelihood depended upon cultivating the land as did the white man. They considered this fate a punishment visited upon them for their unfaithfulness in keeping up their religious ceremonies. They very reluctantly gave up their old customs and habits, and their progress in civilization was very slow. Not until their children had attended school for some time did they make much progress. The reservation boarding-school, which took children from their camp associations and placed them in a house instead of a tepee, the training-school, which took them as far east as Carlisle, Pa., where for several years they had no contact with camp associations, were influences for good, and their civilization become more rapid. The schools not only influenced those who were in school, but it exerted a strong influence over the parents and other camp Indians. I will illustrate this by showing that placing his boy in school had a greater influence over Little Medicine, a Cheyenne chief, than all other means we could use. Little Medicine was a non-progressive Indian, who claimed that the Great Spirit had made him an Indian and he did not wish to be anything different than the Great Spirit intended him to be. I had moved about five hundred non-progressive Indians fifty miles from the agency, where I was trying to induce them to build houses and to engage in farming. Little Medicine would do nothing toward building a house. He would only raise a little corn and some water-melons, saying that he did not do a thing because it was the white man's way but that he might provide food for his family. When we finally succeeded in getting a boarding-school established, Little Medicine brought his boy to school on the day set for receiving children. He asked to be permitted to keep his boy one day longer in camp, that he might retain his long hair and remain an Indian one day longer. After the boy had been in school for several months Little Medicine came to me and said: "You know that I had always refused to build a house or do anything like civilized people did. Now I come to you asking you to tell me what to do to become like a white man, and to live like they do. Now, I will tell you what has caused this change in me. When I put my son in school, I thought that while he might wear short hair, and clothes like white people he would yet be an Indian at heart. I find that this is not so. When he comes home he talks of what white people do, and I can see that he prefers white people's ways to the Indian ways. I can see that he has taken a road different from the one I am traveling, and if I do not go with him I shall lose him. Now as I love my boy better than anything else in this world I will travel the road that he is going, that I may be in sympathy with him." Many other Indians have, like Little Medicine, given up their Indian customs to be in sympathy with their children who have been trained in school. Surely, "a little child shall lead them."

At present there are many adult Cheyenne and Arapahoe Indians who have been educated and now have children of their own. These Indians, knowing the value of an education, are more desirous that their children shall be educated than were their own parents that they should be educated. Those who have attended a boarding-school have been taught to work—the boys to farm, and the girls to do housework. Quite a number of them are living in well-furnished homes, as comfortable and as well kept as those of their white neighbors, while many others live in square tents instead of the old-time Indian tepee, and have introduced into these canvas homes many articles of household furniture, such as stoves, bedsteads, and chairs. I believe that there are very few Cheyenne and Arapahoe Indians who do not look forward to the time in the near future when they will have a comfortable house to live in. Those who have children in school hope to have a house by the time their children return from school.

The next progressive step should be to get the Indian children admitted into public schools of the country where they live. The Oklahoma schools, both normal and public, are open to Indian children as well as to white children. Some Indians are now sending their children to public schools with satisfactory results, and the majority of the educated parents express a wish to send their children to school with white children. The Cheyenne and Arapahoe Indians are comparatively wealthy. They have school accommodations for all their children of school age. Their homes are situated in a state with laws prohibiting gambling, and where the prohibition law is enforced; and what they now need is practical business experience, which they cannot acquire while all their business is done for them by the government.

The present Commissioner of Indian Affairs, Francis E. Leupp, has made the civilization of the Indian a study, and has inaugurated some very good progressive rules in regard to their management, one of which is granting worthy, capable Indians the privilege of managing their own allotments. The Indians as a rule are glad to avail themselves of this privilege. They do not in all cases manage wisely, but when they do not, and they suffer inconvenience because of it, it teaches them to be more cautious in the future. A few had the restrictions removed and have, by their own choice, become full-fledged citizens. In some cases when the restrictions were removed from their lands they have sold or mortgaged them. They do not always wisely spend money so derived, yet when they do not they furnish an object-lesson, and it is a practical one that will be taken note of by other Indians. This lesson is, if you sell your land and spend the money foolishly, you will become poor and have to work for a living just like thousands of white people.

As education, both literary and industrial, brought the Indians up to their present state of civilization, we are justified in claiming that the education of the Indians will suffer no backward steps under the present administration of Indian affairs.

When I recall what these Cheyennes and Arapahoes were when I first knew them as wild roving Indians, then what they are today—some living in comfortable houses, with telephone connections, and rural mail boxes where they receive their mail daily—I feel that these Indians in a reasonable time will become worthy citizens of this great government of ours.

HOW FAR ARE THE PRINCIPLES OF EDUCATION ALONG INDIGENOUS LINES APPLICABLE TO AMERICAN INDIANS?

G. STANLEY HALL, PRESIDENT, CLARK UNIVERSITY, WORCESTER, MASS.

In both the government and mission schools of British South Africa two methods are now in use; the oldest and most prevalent one is much as we teach Indians and Philippinos. The Bantu child right from the kraal is taught English from the start, and the ideal is to treat him in school as far as possible as if he were a white child, the course being about the same as for London children. The other, newer, method which, tho advanced by Bishop Colenso, has only had a fair trial within the last ten years, is to educate the Kaffir child for the first few years in his own language, and only after the third, fourth, or sixth year of school entirely to modulate over into English for the bright ones who go on so far. The vernacular is at the base and English at the top of the system. Elementary education must thus be conducted in the native tongue. It is a little something like this that I plead for in our Indian schools. In Africa, the difficulties and objections to this method are the same as with our Indians, but the first are being overcome and the last answered. One is that there are so many dialects that it is easier to bring all tribes over to our tongue than for our teachers to learn their own. Of course it is easier. This is in part an argument of laziness at the expense of the best interest of the child, but the best answer is that education should group children into cognate, linguistic stock where this can be done, and that teachers must do as missionaries have always done—learn the native tongue. Some of these tongues have but a few thousand words in them and these fit precisely the child's stage of development. Again, it is objected that the native tongues are uncouth and incompetent; but it is the common testimony of those whites who have mastered them that they can preach better and indeed get nearer to the native soul in their own language than in English, and that nearly everything that the child can grasp up to ten or twelve years of age can be expressed in them. Again, it is objected that they will and should die out, but those who know how persistent indigenous tongues like the Gaelic are, know that this is not true. They linger for centuries even in close contact with a so-called higher language. In some of the crudest of the Bantu tongues, e. g., the Tonga, the elements of nearly all the sciences, save only chemistry and mathematics, which need technical terms, can and have been put into little encyclopedias that bring the subject home to the mind and to the heart. These tribes have a rich collection of folklore; and as this is of the vital sort that lives from mouth to ear and not of the bookish sort that goes from hand to eye, some of them are little masterpieces, and have a high degree of both literary and moral worth. Matters of kraal life must and should be dealt with in the language of the kraal; and the same is true of the wigwam. A new language cuts the child off in the most perceptive period from the stock of inherited ideas. With the death of their tongue "something else will die out that can never be replaced." "The very thinking process is impaired, if not stopped." The mongrel English that results from this method is a kind of pigeon kaffir with many English words. Yet they learn enough to come to look down upon themselves and their race and its possession. The old way of Anglicizing everything from the start is called by Junod "a cleverly planned scheme to stamp out everything native." They are expatriated in their own home and despise their parents. It is simply amazing to see how much of very high value for practical and moral life there is in the customs and speech of aboriginal tribes; and if our schemes, like Jesus', aimed "not to destroy but to fulfil," far better results would be achieved. True, many boys wish to learn English for the sake of its practical utilities to them, but this makes their intellectual processes superficial, and they become subtle parvenus, craven and servile, with the heart gone out of them. At the very best, the system only turns out caricatures, or pinch-backed imitations of white men, profoundly dissatisfied and restless. They have lost their old anchorage and not found a new one; and thus the worst result of the contact between higher and lower races is realized. Weissman, Boaz, and many other anthropologists have shown that in native gifts primitive people are hardly at all inferior to us; but it is just as essential that they should evolve along the lines of their own heredity and traditions as it is for us to do so.

Dudley Kidd shows that the aboriginal Kaffir is a man, a gentleman, and a true sportsman, splendidly built, free, graceful in his movements, open in his manner, well proud of his clan system, intelligent, social, kind-hearted; while the educated Europeanized Kaffir, in his second-hand clothes, is cringing, shoddy, and tawdry in his character, top-heavy with conceit. His modicum of civilization has injured him morally even more than it has benefited him materially. We have not understood him, have broken up his customs and demolished his views of life, tried in twenty years to push him ahead six hundred. Flinders Petrie pleads for a practical application of anthropology, and well may we ask why does not our Indian Bureau utilize the results of the Bureau of Ethnology, for no race has been more studied or has ever been worse treated than our Indians. Consider, too, the in many respects ideal customs of the African Vei, as explained by their Prince Momolu who, after long study of our civilization, prefers his own, which compares favorably with that of the Germans in the days of Tacitus, or the British under Alfred the Great. Buttikofer, Landor, Cator and many others have described so-called savage communities that in certain most vital respects put us to shame, while the blood and oppression of primitive races have long cried from the ground to heaven. Our education is too often slow, ethnic death for them.

The same is true in some degree of our industries which crush out native occupations. Why kill the clever Indian art of basketry, into which the squaw sometimes weaves her very life, by our cheap and clumsy raffia work? Why teach young braves to make and wear coarse, cowhide shoes, when their moccasins are far more hygienic and their construction far more instructive, while, like basketry, the output has a higher market value? Why substitute the life of the barrack-like government schools for that which Sitkla Sa has described? Why fit the young Indian, in the language of one of them, to clean the spittoons of the white man's civilization instead of helping him to develop his own? Why not make him a good Indian rather than a cheap imitation of the white man? Why teach him our Sunday-school ditties, and let his marvelous native music, which Miss Fletcher and Natalie Curtis have learned and taught us and which is so unique and even sublime, be forgotten? Is a poor twentieth-century farmer or a reservation Indian better than a noble red man of the Stone Age as an ideal to aim towards? But we need at least to learn what they have to teach us before it is all extinct. The original Indians of both North and South America have ever been called the most religious race on earth. A large volume of their prayers on every occasion, now in the press, shows this. Would Jesus himself have swept all this away, or would he rather do for it what he did for the religion he found, elevate it, bring out the new from the old. Our missionary pedagogy is in its embryonic stage, and when it is unfolded, it will do for all faiths, low or high, what the

Master strove to do for that of the Hebrews—evolve it into a higher dispensation and reveal what lay concealed in it.

Of course, conditions have changed: the buffalo is gone, the reservations are poor. We make it a crime for him to leave his impoundment; we crop his hair; forbid the festivals and dances of his religion. I do not object to some of our industrial arts for him, but I plead for the pious conservation of all that is good and that can be kept or restored of the old tribal life—its traditions, folklore, arts, industries, and above all its free, manly spirit. To let these perish is a crime for which our codes have no penalty and our lexicon no name. It is the slaughter of the soul of the people, in this case probably the noblest of all races living in this stage of development. It is a crime even against the noble science of anthropology which still has so much to learn that is passing away so fast that perhaps the very best of it all is likely to elude us. Can we not somewhere gather the remnant, and if the government will not do it, will not some philanthropic millionaire help to bring together the best weavers, tanners, bow-makers, those expert in lore of the forest and animals, the bards, the flint-chippers, artists, and the rest, and revive at least some of the best there is in tribalism, teaching the Indian to respect his own abilities, or at least to let him teach us his arts before he perishes; or is it too late even for this? Has anyone of them ever been so enamored of the pale face's works and ways as some of us have been of theirs, and if not, why not? Is there no good Indian but one whose soul has been killed under our system? Is the ghost dance in which the living hold holy commune with the clouds of ancestors in the happy hunting-ground still so dangerous that we must everywhere suppress this sacrament? Were the school Indians on the hill at the St. Louis exposition really better men and women than their wilder congeners in the tents below? These are questions to which everyone connected with the Indian Bureau of Schools has a glib and ready answer, which every popular audience will approve, and even some Indians have been well coached in such answers. But there is a large and growing minority of intelligent men and women in this country who read all these reports and who are not satisfied but who want something better, different and more indigenous, and who would ask the Indian bureau why it makes no use of the work of the Bureau of Ethnology, or if the results obtained by the latter have no educational value whether they are really worth the making—what other value have they that justifies the labor and expense of making them?

HORTICULTURE AND LANDSCAPE GARDENING

R. H. HOFFMANN, FLORIST, CARLISLE INDIAN SCHOOL, CARLISLE, PA.

Horticulture and landscape gardening are practically nature-study. The Indian youth are by nature fond of the natural world and its laws, and gifted with a natural love of the beautiful. Consequently they are close observers and students of nature. With proper training we believe that they can become efficient in this particular line of work. In the greenhouse they are eager to compare different species of their native plants and flowers, growing perhaps in wild profusion on prairie and mountain side. In this they manifest more eagerness than most white children which have come under my observation.

The teachers of the different departments say it is marvelous what effect is produced by a promise of a visit to the greenhouse. New life and spirit is manifested in the schoolroom after an hour of musing and study with nature.

The students of the Carlisle Industrial Indian School with proper training along the line of horticulture, we believe, will make a success of their efforts in this department. They are not afraid to experiment with an idea they have gained in the study of plant life; consequently when they have been shown how in a lecture they are eager to apply their knowledge in a practical way. We believe that much can be accomplished thru this department to elevate the character of the surroundings into which many of these children go when they return to reservation life.

In our small greenhouse we have raised about 20,000 bedding plants, geraniums, coleus, cannas, etc. We have also several hotbeds where the children have been taught to raise cabbage and tomato plants, lettuce, etc. Likewise under the supervision of the agriculturist they have an opportunity to study this work further in the gardening department. Chrysanthemums and carnations are cultivated in large numbers, from which cut flowers are taken to adorn the school and living-rooms and the hospital wards. A number of decorative plants have been raised, palms, and the like, which are artistically arranged by the pupils for public and social functions.

Landscape gardening is taught in the beautifying of our extensive school grounds. We have recently graded the lawn around the new hospital, the boys having the opportunity of starting the work: plowing, grading, raking, rolling the lawn, sowing the seed, staking off the driveways and walks, laying out flower beds in designs, planting of shrubbery and shade trees, sodding edges of walks, binding the crushed stone, and in fact everything connected with landscape gardening. Many trees are set out on Arbor Day, a day set apart by state proclamation in Pennsylvania.

The boys are taught pruning, trimming, and fertilizing the lawns and flower beds. In springtime the campus is covered with tulips and crocuses. Thus is laid the foundation for beautifying the home and its surroundings.

A more practical side of our work for commercial purposes is the nursery which has just been started. We have many fruit trees, California privet hedge, and hardy roses, set in the nursery. Here the Indian youth are taught, along with the aesthetic culture, a useful and profitable side of the work so much needed to give them proper conceptions of true home life.

Even weeds are worth the while to study, not only as to how they may be destroyed, but also their uses for the culture of the honey bee, etc. Emerson said; "Succory to match the sky, columbine with horn of honey, scented fern and agrimony, clover, catchfly, adder's-tongue, and brier-roses dwelt among."

But our own Whittier put the poetic touch upon some of the common flowers that have grown wild in our country when he sang:

Along the roadside, like the flowers of gold
That tawny Incas for their gardens wrought,
Heavy with sunshine droops the golden-rod.

Why should not the practical as well as the beautiful be impressed upon these sons of the forest, who are by nature lovers of the life shown in the natural world? We contend, therefore, that there is no more important department for the education of the native American than that of horticulture. To show the results of this training I quote an extract of a letter received from a boy who, having spent part of a year in the study of horticulture, has had an opportunity to apply his knowledge thru the Outing System. He says: "I have transplanted a bed of strawberries, and other house plants. I have also edged the lawn along the walk and driveways. Have prepared some flower beds, which I will fill with plants later on, thus putting into practice what I have been taught in the department of horticulture at the school. I shall go back again to this department when I return to Carlisle in the fall."

With so large a field for useful and efficient service, we commend this study for wider and larger purposes among the young Indians.

DEMONSTRATION LESSONS

Demonstration lessons were given by teachers in the service, showing how the classroom instruction in the different grades may be correlated with the work on the various industrial departments. Classes of Indian pupils were used in the presentation of these lessons, synopses of which are included in the report of the proceedings for the assistance of teachers who were not present at the institute.

TOPIC: SUGAR BEETS

PRESENTED WITH A CLASS OF INDIAN PUPILS BY MISS ALICE M. KINGCADE, PRINCIPAL TEACHER, MOUNT PLEASANT INDIAN SCHOOL, MOUNT PLEASANT, MICH.

I have selected the beet-sugar industry for my subject because of its importance in our state. With two exceptions all the Indians attending Mount Pleasant School reside in Michigan, where there are twenty-four beet-sugar factories—a greater number than in any other state. Each year the beet growers are learning to produce larger supplies of beets and it is important for the children to acquire in school some knowledge of the industries in which they will engage, after leaving school, as a means of livelihood.

Teachers must not think that they must all teach sugar-beet raising; I do so because the subject is of vital importance to my pupils. You must find out in what work the Indians in your locality are interested; it may be cattle or sheep raising, or lumbering, etc.

In your classroom exercises help your pupils by giving them information of a practical character respecting the paying industries in which they will most likely engage upon leaving school, that they may work intelligently.

We secured literature on beets from the Department of Agriculture and the experiment station at Lansing. These, together with newspaper reports on markets, crops, etc., are used in the class for reading, composition, and arithmetic lessons. The industry includes healthful and industrious habits, and enables the pupils to earn and save money.

This is a mixed class of primary- and fourth- and fifth-grade children and the lesson, as I shall give it, is intended to cover the work that may be accomplished from the first to the fifth grade.

Teacher.—Angelina and Bertha (primary grade) may go to the board and draw a few beets showing the average size and growth of Michigan beets.

Levi may work the problem he finds on the board, while the primary class is reciting.

Interesting experiments are made in the garden by the small children. We buy the seed, charging the pupils with them. The children plant the gardens and sell the produce. This work is correlated with arithmetic, reading, writing, and other studies in the classroom.

Let us look at Bertha's and Angelina's drawings.

Bertha, what can you say about your drawing?

This (pointing to the drawing) is not a good beet, it is short and part of it has grown out of the ground.

Q.—Angelina, will you tell us about yours?

A.—This is a good beet, it has grown deep in the ground.

Teacher.—Now come and sing us something about beets. (Bertha and Angelina sing a little song entitled "Two Little Sugar Beets.")

Teacher.—Nancy may tell us on the board of the beets she raised.

Nancy (writes).—I raised 3 rows of sugar beets:

I had 7 beets in the first row
I had 10 beets in the second row
I had 8 beets in the third row

I raised 25 beets in all.

I sold these beets to the teachers' club. I put the beets up in bunches of 5 beets to each bunch, so I had five bunches, or

5)25 beets

5 bunches with 5 beets in each bunch.

I sold these beets for 10 cents a bunch.
If one bunch brings 10 cents, 5 bunches will bring

5 × 10c, or 50c.

I received 50c. for the beets, and I spent 5c. for the seed, so I cleared the difference between what I received and what I spent, or

50c. − 5c. = 45c., clear profit.

Teacher.—This subject is interestingly used in the higher grades correlating language, composition and other subjects, as I will now illustrate with fifth-grade pupils.

Q.—Frank, tell me why we plant sugar beets, and something of the soil in which they should be sown?

A.—Some of the reasons for growing sugar beets are: to make money, to establish a paying business and to give employment to many people. The soil for sugar beets should be strong and productive, but not newly cleared land. Beets do not contain as large an amount of sugar when planted on low, damp land, corral or barnyard soil. Beets grown in such soil are of a low grade for sugar making.

Q.—When is the best time to plow; and how deep do we plow?

A.—It is best to plow in the fall, because where the ground freezes plowing has a pulverizing effect and makes plant food available. We usually plow ten inches deep in Michigan, and some farmers use a fertilizer. Clover sod is a good fertilizer. After the ground is properly prepared it should contain sufficient moisture and warmth to sprout the seed. It is a good plan for the farmer to have the ground all well prepared in order to seize the first favorable opportunity for planting.

Q.—Lucille, where do the seeds used in Michigan come from, and how are they planted?

A.—The kind of seed most used in Michigan comes from Germany. (Lucille here displays some seed.) In planting we use drills for drilling the seed into the ground, and a beet cultivator, which takes two rows at a time, the horse walking between the rows. The average quantity of seed sown is about fifteen pounds to the acre; and to those experienced in sugar-beet growing this is not excessive, but a necessary safeguard because so many things interfere with germination that it is wise to have the plants thick. They also help break the ground if it is dry or crusted, while if there were only a few they could not get thru. In Michigan we plant seed about half an inch deep, or just deep enough to cover them.

Q.—Why has it been necessary to cultivate the soil up to the time of planting?

A.—The soil is cultivated up to the time of planting in order to kill the weeds, and to pulverize the soil so that it will cling to the seeds and enable them to extract moisture from it. If the soil is in large clods, air circulates around the seed and deprives it of sufficient moisture to enable it to sprout.

Teacher.—Frank may tell us more of the cultivation of the sugar beet.

Q.—After blocking what is done?

A.—After blocking, which means thinning, we weed the fields. Beets should be cultivated once a week until they are ready to be harvested. They are ready to harvest when the leaves turn yellow.

Q.—Levi, how are beets harvested?

A.—Beets are first lifted. A specially constructed plow goes just beneath them and cuts the tap root, a man follows, takes a beet in each hand, slaps them together to knock the dirt off, then he throws them in a pile. The leaves are now cut from the beet, and they are usually shipped right away; if not, they are covered with the leaves that they may not lose their moisture.

Q.—How are beets sold?

A.—Beets are sold by the ton and bring from five to six dollars a ton. It is hard work raising beets, but a farmer makes more money at it than raising hay. He usually plants about two acres and raises about fifteen tons to an acre, while he raises only about two or three tons of hay to the acre. If a farmer raises fifteen tons of beets on one acre and sells the crop for $5 per ton he has made $75 per acre, or $150 for his two acres, and has not spent more than $8 or $10 for labor.

Q.—Tell us of a good fertilizer for sugar beets; of the influence of the crop upon the roads; and of the crop rotations in Michigan.

A.—Nitrate of soda is a good fertilizer for beet-sugar farms. The beet-sugar industry has done more than any one thing toward the good-roads reform. The farmers hauling their grain can wait until the roads are good, but the beets must be delivered when the factory needs them and that is the time of year when the roads usually are bad. After the beets are harvested the fields should be planted in oats, fall wheat, potatoes, or other root crops, or sown in clover or grass. The crop rotations practiced in Michigan are: sugar beets, oats, fall wheat, clover, then back to sugar beets.

Teacher.—The Indian boys of Mount Pleasant school have made considerable money by working in the sugar beet fields.

Q.—Frank, tell us something about how the Mount Pleasant boys spend the money they make in the beet fields.

A.—Ward Pego made $10, gave half to his parents, and spent the rest himself. Sam Leo earned $2.50, spent a little, loaned the rest to some boys who never paid him back. Alfred LeBlanc made $7 and gave it all to his mother. Mitchell Mobey earned $13 and spent it on having a good time, going to shows, etc. Christy Price made $15, bought shoes, a shirt, a hat, a necktie, etc.

Q.—How much are the wages for working in sugar-beet fields in Michigan?

A.—The wages for working in sugar-beet fields in Michigan are from $1.50 to $2.50 per day.

Teacher.—The Indian children at the Mount Pleasant School are taught the beet-sugar industry so that they may learn the business and work in the sugar-beet fields during vacation, and after leaving school cultivate their own land and raise large crops and make a good living.

Q.—How does the sugar-beet crop rank as a food for animals?

A.—Aside from the sugar-producing qualities the sugar-beet crop ranks first among crops as an animal food. As feed for cows it increases the milk supply, and it is nutritious and aids digestion. When fed to beef cattle it makes the steak and roast firmer, juicier, and better flavored. When hogs are fed upon sugar beets, a firm quality of pork is the result.

Q.—Do all of the beet factories in Michigan prosper?

A.—A few beet factories have failed because farmers were unable to get enough helpers and could not raise large enough crops to supply the factories; also because the farmers and their helpers were not sufficiently experienced and did not know how properly to raise the sugar beets.

Teacher.—Levi may first state and then explain the problem he has worked on the board.

Levi states the problem: If you have a field of 20 acres in Michigan sown to sugar beets, how much will your profit be if the crop yields 10 tons to the acre and you get $6 per ton?

Levi explains the problem: It usually takes 15 pounds of seed to the acre; the price here for seed is 10 cents per pound.

If 1 pound of seed cost 10c, 15 lbs. will cost 15×10c, or $1.50.		
It costs $1.50 to seed 1 acre, to seed 20 acres it will cost 20×$1.50, or........		$30.00
It usually takes two helpers five days, at $1.50 a day, each, to plow 20 acres		
If 1 helper for 1 day costs $1.50, 2 helpers for 1 day will cost 2×$1.50, or $3		
If 2 helpers for 1 day cost $3, for 5 days they will cost 5×$3, or..............		15.00
It takes 15 helpers for 5 days at $1 a day for weeding. If 1 helper costs $1 per day, 15 helpers will cost $1×15, or $15.		
If it costs $15 for 15 helpers for 1 day, for 5 days 15 helpers will cost 5×$15, or...		75.00
It takes 5 helpers for bunching, at $1 per day for 5 days. If 1 helper costs $1 for 1 day, 5 helpers will cost 5×$1, or $5.		
If it costs $5 for 5 helpers for 1 day, then for 5 days it will cost 5×$5, or.........		25.00
It takes 5 helpers for topping at $1.25 a day for 2 days. If 1 helper costs $1.25 for 1 day, 5 helpers for 1 day will cost 5×$1.25, or $6.25.		
If it costs $6.25 for 5 helpers for 1 day, for 2 days it will cost 2×$6.25, or......		12.50
It takes 2 helpers for loading, at $1.50 a day, for 5 days. If 1 helper costs $1.50 for 1 day, 2 helpers will cost 2×$1.50, or $3.		
If it costs $3 for 2 helpers for 1 day, for 5 days it will cost 5×$3, or............		15.00
Total expense..		$172.50
If 1 acre yields 10 tons, 20 acres yield 20×10, or 200 tons.		
If 1 ton is worth $6, 200 tons will be worth $6×200, or............	$1200.00	
Total proceeds of crop..		$1200.00
Total cost of production..		172.50
Net gain..		$1027.50

*TOPIC: STORE METHODS**

PRESENTED WITH A CLASS OF SMALL INDIAN PUPILS, BY THOMAS J. JACKSON, SUPERINTENDENT, NETT LAKE INDIAN SCHOOL, TOWER, MINN.

Our facilities as teachers of Indians cannot be excelled. We have everything which thinkers could desire in order to evolve practical methods and devices applicable to our special needs, out of which grows success.

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* A miniature store on the stage was managed by an Indian boy. Children with various sums to their credit made purchases of calico, linen, clothing, stockings, etc., stating orally the amount to their credit, the cost of their purchases, and the balance still remaining to their credit on the books of the store. The boy managing the store made the proper entries in his books.

Mathematics is one of the difficult subjects to teach Indians because thinking constitutes the one condition necessary to progress—mere parrot work will not answer. Thinking such as mathematics requires must be born of a desire to master the difficulty presented. The right condition is easily talked of but to realize it taxes a teacher of Indians to the utmost. Why? Because, first, the Indian is perverse. He does not want, generally speaking, what we have to give (except rations). Secondly, he has first to learn a foreign tongue before the stores of knowledge are opened to him. Until right conditions prevail we are apt to blame the Indians for our failure.

What is worth while to teach the Indians in mathematics? Do I hear someone say, not to go beyond cube root?

In the great scheme of education, subject-matter is the means. The end is the ability to think clearly, logically, effectively upon whatever engages one's attention. A human's worth is measured by the extent he is able so to apply himself. Education is made possible by means of subject-matter presented to the understanding. Facts gained, conditions realized, are experiences thru which one gains mental power. The sum total of a human's experiences constitutes his education.

Specialties are made up of definite lines of thought—investigation. Attention is continually directed to this or that fact or condition and the mind feeds, taking to itself what it wants. It is the wants that we as educators must look to because each individual mind is supreme.

Environment is the mother of want. As want grows upon a mind its intelligence fosters, invents means to satisfy. Thru these mental processes comes the ability to think clearly, logically, effectively within the limitations of each individual mind.

Would you teach—make your pupils want. That teacher is the best who makes his pupils want—actually want—what he chooses to present. Want is the gauge by which the capacity of both teacher and pupil is measured. Wants may be many, but if we really want something, do we not set the mental machinery in operation to devise means whereby that want may be satisfied? Surely we do. Every mind does the same regardless of the color of the skin covering. Then is it not reasonable to expect that the children will tax their resources, thus gain in strength, to get what they want, really want, in school life? Matter presented to the understanding of children begets and stimulates proper growth. Any healthy mind will have its wants, shaped by environment, hence growth springs up as one's organism yields these wants.

In the absence of proper conditions, too many teachers go on painfully day after day failing to touch the inner life of the children respecting this great subject of numbers. If the grade be steep, put on more steam, then use sand; but surmount the difficulty to the betterment of our cause.

Applying a few of the simple principles of psychology to our needs we have a clear course to follow. What child does not like pretty new things and want them? The government provides for the Indian children, but is it not wrong, positively wrong, from the Indian's standpoint, to give these goods without money and without price? Should not a child feel a healthy independence in order to develop as mother nature intends?

We, as teachers of Indians, have the United States government at our back and it is a great privilege to be able to use what is so lavishly placed at our disposal, but the fundamental principles of proper development should not be upset by unwise use of our bounty.

I hold it as a matter of principle, backed up by economic and moral law, that we should pay for what we get. Then our children should be so taught. Is there longer any use to hamper the healthy growth of our Indian boys and girls by educating them to believe that it is the government's duty to provide for them? Why not put our schools upon the basis of work and pay, not receive and decay. We can at least approximate the principle.

Since environment conditions want, to create a proper condition for growth in an Indian school, I use a school store, the simple operation of which I shall attempt to illustrate presently.

One of my wants was to make the government goods serve their best purpose, hence devised a plan to have the children work on the school farm, as a matter of principle thus gain a credit and buy what they so much desired to have. So an account was opened with each pupil and the device worked like a charm, because they were made to want, actually want, what I had to give later in the way of numbers.

To facilitate matters we made a little store, similar to this (a small store was installed on the platform) right in the school room, took a large boy for storekeeper, threw away the texts in arithmetic and went to work presenting matter to the understanding of the children. In time relations began to dawn upon the slow minds and I was able to say effectively to them, "You cannot work that little problem because you do not know enough yet. This is what you must do first." A little direction at the right time counts for gold. When once in working order the store was managed completely by the pupils and it was their delight to solve the problems connected with the store accounts. Later texts were in place and the children used them, grasping their full meaning; from thence worked, as any pupil should work, with a view of accomplishing something for themselves.

Lastly, in the schoolroom, if there is one thing more important than others, it surely is this: Present matter to the understanding of each member of the class. Thru this practice wants are stimulated and developed in other more numerous and complicated ways as the aspirant mounts the succeeding planes which mark the steps of his progress.

TOPIC: COMMENCEMENT EXERCISES

AN ORATION ENTITLED "MY PEOPLE," BY ELIZABETH PENNY, FULL-BLOOD NEZ PERCÉ INDIAN, CLASS OF 1908, CARLISLE INDIAN SCHOOL, PA.[1]

I belong to a tribe living in northwestern Idaho, known as the Nez Percé. The meaning is "pierced nose." The name of the tribe in Indian tongue is "Tzupnitpalu." The tribe numbers now about 1,500, all of whom have land.

Since Christianity was brought into the Nez Percé country the people have advanced very rapidly towards civilization. My purpose is to tell you of the manners and customs of my people a century ago. These Indians are well proportioned, the average height of the men being about six feet.

The different places occupied by the bands of Nez Percés were (1), Kamiah; (2), Lapwai; (3), Salmon River; and (4) Walawa, Oregon, the latter being the hunting grounds of Chief Joseph, of whom most of you have heard. I will tell you some of the customs so far as I can remember them, as told by some old Indians concerning the habits of my tribe. Before the white men were ever seen by these Indians they had their own way of worshiping. It was told to me that in the beginning these Indians were entirely in darkness. They knew nothing of the work in the line of a religion. At that time there was a certain person who had a true vision that in the future there was a great change to take place. He had a dream of the spiritual side of life, and he also received a song in his dream to be sung at the time of worship. Of course all the people were ready to believe his prophecies. The means of worship were very rude. Instead of sitting in a place of worship, they danced in the form of a line. All the men and women took part in the performance. (A song describing the above was now given by six Indian students from Carlisle Indian School, Pa.) At that time the Indians had a peculiar disposition. They had a belief that some of you would call superstition. Even at the present time it is believed by some of the tribes that medicine men have supernatural power.

When a boy was between six and thirteen years of age he was sent to a lonely mountain for several days with only a small portion of dried venison. The object of this journey was to secure an extra preparation for his future life. It was believed that some power was given him by some animal being which presented the stranger with a sacred song. If he received a song and risked his life it would work a great change in his life. It may seem very ridiculous to you, but it was a common belief among my people. This was the first step toward becoming a dreamer, or an Indian medicine-man. One had to go thru years of this sacred work before he could become a medicine-man. This process was carried on during the winter season. A long tent was built and the sacred songs were sung by the individuals gifted with these songs. The person who began the ceremony started to sing and the rest assisted. When he became exhausted an aged medicine-man breathed on him, and using his power the young Indian soon regained consciousness. It was believed that this custom was a great factor in making the Indian a great warrior and increasing his power to endure hardships in securing food. (The students now presented this song, after the fashion above described.)

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[1] This exercise was given for the purpose of showing the instructive features the Indian Office desires introduced in school commencements.

Miss Penny, attired in conventional graduating dress, was assisted by a band of Nez Percé Indians dressed in native costume, who illustrated her talk with songs, dances and various tribal ceremonies, contrasting the home life and customs of the Indian in his native condition with that of a graduate of a government school. It was a forceful demonstration of what education is doing to prepare the Indian for citizenship; and by request of the audience was repeated at a subsequent session.

When a medicine-man was called upon to treat a person who was sick, he was offered probably two horses, blankets, and other things of value. The first thing he did was to have a person announce at what certain tent he was to perform his duty, or, in other words, his act of divine healing; and all were urged to come and assist in the singing. The process of his treatment was: first, to sing his song with the help of others; second, to make a few motions over the body. Once through with these processes he was able to tell whether his performances were hopeless or encouraging. If hopeless he ceased his performance. If encouraging he continued his ceremonies at least once a day until his patient recovered. (Here the students chanted the weird incantations, and imitated the rôle of the mysterious medicine-man.) Medicine-men never use medicine. They had faith in themselves. These Indians believed that enduring hardships made them strong and able to conquer their enemies, such as dashing into a river of floating ice. In those days women were just as strong physically as men.

At that time it was a sad sight to see the handsome warriors leaving their homes going to war with other tribes. They bade their friends and their families farewell by going around from one tepee to another singing their parting-song. (A parting-song was now sung by the students.) The warriors were followed about by some member of the family with about ten pairs of moccasins, and a small lunch at time of their departure. The only way of sending messages to one another was by burning a balsam tree on the highest point of the Rocky Mountains. This showed the people at home that they were safe on their journey. The same way in returning. If they set fire to more than one tree that meant good news. Upon returning they held a scalp dance. The object was to show honor to the warriors who had secured scalps. They also danced to celebrate the victory over their enemies. (The dance they held on such occasions was now demonstrated by the students.)

The custom of marriage in olden times among the Nez Percés was very peculiar. They were very backward in courting. It is told that most the courting was done by the parents. The wedding consisted of a dance, and the song they sang was full of life. (The wedding dance and song were now demonstrated by the students.) After the wedding the bride followed the brave to his home, where she was expected to do all the home work. She had to get up at dawn and work till late in the evening. It was her duty to hand a drink of water to her husband whenever he wanted it. It was also customary for her to take her husband's moccasins off. And during the meals each person had his own plate, and they ate separately instead of all together. The woman never thought of taking a bite of food before her husband. The man looked after the hunting and ponies, and provided the best saddle pony for his wife.

All Indians at that time had Indian names, most of them referring to some animal, mountain, storm, cloud, thunder, earth, etc. The names were inherited from generation to generation. When a child was named there was a great feast prepared, and the parents of the child presented gifts to some old man, or woman. Even now most of my people go by Indian names.

TOPIC: RUG-WEAVING

DEMONSTRATION BY INDIAN GIRLS, UNDER THE DIRECTION OF ANGEL DECORA DIETZ
INSTRUCTOR OF NATIVE INDIAN ART, CARLISLE INDIAN SCHOOL, PA.

This demonstration of rug-weaving by Indian girls with native looms illustrated how the Indian Office is teaching the Indian children to make practical application of the native designs in the manufacture of rugs of Persian and other weaves in common use. This will eventually not only open up a larger field for the sale of products of the Indian but will enable him to make a practical contribution of the native art of America to the art of the world.

Mrs. Dietz also displayed specimens of her pupils' work, showing what the Indian Office is doing for the preservation of Indian art, and explained to the teachers how best to carry on this work in the class room.

DEPARTMENT OF TECHNICAL EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—Louis C. Monin, dean, Armour Institute of Technology, Chicago, Ill.
Vice-President—A. B. Storms, president, Iowa State College, Ames, Ia.
Secretary—George A. Merrill, principal, School of Mechanical Arts, San Francisco, Cal.

FIRST SESSION.—Tuesday Morning, June 30, 1908

The session of the Department of Technical Education was called to order in the Epworth Memorial Church by President Monin at 9:30 o'clock.

The president's address, "Engineering Degrees," was delivered by President Louis C. Monin, dean of the Armour Institute of Technology, Chicago, Ill.

Fred W. Atkinson, president, Brooklyn Polytechnic Institute, made a report by the Committee of Seven on Entrance Requirements to Colleges of Engineering.

"The Desirability of a Five-Year Course for Students of Engineering" was discussed in an address by A. Marston, dean of the College of Engineering, Iowa State College, Ames, Ia.

SECOND SESSION.—Wednesday Morning, July 1

The Department met in joint session with the Department of Secondary Education for the discussion of the general topic, "The Cosmopolitan High-School Curriculum."

THIRD SESSION.—Thursday Afternoon, July 2

The Department met at 2:30 o'clock with the Department of Rural and Agricultural Education in joint session for the discussion of the topic, "What Is Agriculture—Elementary—Secondary—College?"

An address on this topic was read by A. C. True of the United States Office of Experiment Stations, Department of Agriculture, Washington, D. C.

This paper was discussed by C. F. Curtis, dean of Division of Agriculture, Iowa State College, Ames, Ia., and others.

On motion, the following named were elected as officers of the Department for the ensuing year:

For *President*, Louis C. Monin, dean, Armour Institute of Technology, Chicago, Ill.
For *Vice-President*, Albert B. Storms, president, Iowa State College, Ames, Ia.
For *Secretary*, George A. Merrill, principal, School of Mechanical Arts, San Francisco, Cal.

The Department then adjourned.

Arthur J. Wood, *Acting Secretary*

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

ENGINEERING DEGREES

LOUIS C. MONIN, DEAN, ARMOUR INSTITUTE OF TECHNOLOGY, CHICAGO

The work which the new Department of Technical Education, organized last year at the Los Angeles meeting of the National Education Association, undertook from the outset is in the direction of greater uniformity as to the kind and amount of instruction in technical schools and colleges. We believe with Henry Van Dyke that—

> Life is an arrow, therefore you must know
> What mark to aim at, how to use the bow,
> Then draw it to the head and let it go.

Therefore the endeavor of our investigations and discussions is to determine more definitely the three phases of engineering education; viz., the starting-point, the course of study, and the results to be obtained. The Los Angeles meeting took up the question of entrance requirements to colleges of engineering and appointed a committee of seven to report at the Cleveland Convention.

In consulting the program bulletin of this year's meeting, you will see that the papers and discussions deal chiefly with the course of study and with questions as to the dividing-line between the high-school and the college courses. These discussions point naturally to the conclusion of an engineering course; namely, to the question of engineering degrees.

In our attempts to recommend some standard course of study for engineering colleges, no definite agreement can be reached without some agreement as to the starting-point, and again without some agreement as to the definite meaning attached to engineering degrees. We realize and appreciate that as early as 1894 the Society for the Promotion of Engineering Education took up the discussion of all these questions and carried it forward to good results. However, we are as yet very far from having reached the desirable clear perception of aims or the ripe completeness of system and methods. It is of great importance that the Department of Technical Education should also fully discuss these matters and formulate definite views in regard to them.

As the question of aim may fitly become the topic of next year's meeting, I wish to point to the desirability that degrees in colleges of engineering should be awarded according to some more uniform system. Knowing more clearly the goal toward which we are striving, the difficult problems of the proper distribution of professional and cultural studies, of the length of the college course, the amount of shopwork required, etc., may be dealt with more speedily and more profitably. With your permission I should like to lay down the following proposition: If the degrees of Mechanical Engineer, Electrical Engineer, Civil Engineer, etc., are to indicate the high professional standing of the bearers of them, and if they are to be on the same level with the degree of Ph.D., they should never be conferred at the end of an undergraduate course.

In the evolution of our educational system, three means have been found to award the scholar and to indicate the successive steps by which he may reach the highest professional standing. The first, or lower degree of efficiency, is designated by the degree of Bachelor of Science or Bachelor of Arts. After more intense and specialized work, the scholar may reach the second or higher degree, namely, that of Master of Science or Master of Arts; and the third step is indicated by the degree of Doctor of Science or Doctor of Philosophy.

My suggestion is, therefore, that at the completion of the four or five years' undergraduate course the degree of B.S. shall be conferred; after one or two years of postgraduate work, the degree of M.S., and that of the engineering degrees, M.E., E.E., C.E., etc., shall be conferred only after three or four years' practice and the writing of an appropriate thesis.

Engineering is now recognized as being one of the learned professions, and if our notions as to what the engineering degree should represent were more definite, I hold that it would be much easier to map out a standard course of study and, also, to place more accurately the lines of demarcation between high-school work and college work, and between undergraduate work and graduate work.

Thanks to the procedure and effective agitation which the *Educational Review*, under the leadership of President Butler of Columbia University, has kept up for many years in regard to the degree of Doctor of Philosophy, we have reached almost entirely uniform practice in the awarding of such a degree. The result of the *Review's* efforts has been that the degree of Ph.D., now awarded only in course, has become the recognized reward for continued and successful resident postgraduate work. Can we not agitate in a similar manner in behalf of the engineering degrees?

The chief reasons why the engineering degrees should not be awarded at the end of the undergraduate courses are:

1) Such degrees should be on a higher plane than those offered by the Baccalaureate.

2) The work done in the college is academic and not practical and should, therefore, result in the academic degree and not in a degree which is descriptive of a certain kind of practical work; for experience and judgment, as well as knowledge, are necessary in the complete education of an engineer.

3) It is inconsistent for a university to confer in its college of liberal arts the degree of A.B. and in its college of science or engineering the degree of M.E. or E.E. instead of B.S.

4) The awarding of the E.E., M.E. and C.E. degrees at the end of the undergraduate course allows of no intermediate or higher degrees. It is already the highest that can be obtained. It gives the young man an exaggerated opinion of his ability, and the contrast between aspiration and performance is too apparent. The training in engineering schools is chiefly in mathematics, science, and drawing, and the degree should attest to this fact. According to the views of the late Professor Thurston, "the engineering school is simply the first stage of professional work and the degree should indicate that fact." If this is so, then the B.S. degree is more properly awarded than the M.E., E.E., C.E., etc.

In regard to the degree of Doctor of Engineering, the best practice would be to place it on the same level with the Doctor of Laws; namely, to award it as an honorary degree only. In this way, the differentiation between the engineering degrees, M.E., E.E., C.E., and the degree of Doctor of Engineering could be made in the same way as between the Ph.D. and the degree of LL.D.

I have ventured to offer these suggestions merely as a means of provoking thought and discussion in regard to the work of engineering colleges. The tendency of our times is toward more definite aims and methods, and if we wish to be just to the students of the engineering profession and to the demands made by the public, by the engineering societies, and by the home, upon the college of engineering, we must not merely improve methods of teaching, but also announce more clearly the ends and aims of the work of colleges of engineering.

ADMISSION REQUIREMENTS TO COLLEGES OF ENGINEERING

REPORT OF THE COMMITTEE OF SEVEN TO THE DEPARTMENT OF TECHNICAL EDUCATION OF THE NATIONAL EDUCATION ASSOCIATION

FRED W. ATKINSON, PRESIDENT, BROOKLYN POLYTECHNIC INSTITUTE
NEW YORK, CHAIRMAN

Your Committee on Admission Requirements, appointed by the chairman of the department on October 25, 1907, presents the following preliminary report:

The committee, after considerable consultation by correspondence, at a meeting held on April 11, decided that it should undertake an investigation along three general lines—the collection of data as to existing conditions of admission to technical colleges; the extraction from these data of plans for improvement; and the presentation of recommendations to the several technical institutions, to the preparatory schools, and to the principal general agencies having anything to do with the determination of entrance requirements.

Upon the recommendation of Professor Tyler and Dean Goetze of the committee, the chairman has attempted to get in touch with the two particular agencies—the College Entrance Examination Board and the Carnegie Foundation for the Advancement of Teaching. Altho neither of these bodies was originally designed to consider such questions as entrance requirements, both have already collected data, particularly the latter, which has carried on investigations on a national scale. A preliminary survey of the information already gathered convinces the committee that there will be considerable economy and other advantages in utilizing this material and in adapting any supplementary inquiry it may make to the form of the information thus already collected.

In New England there is also the Intercollegiate Certificate Board. This board is the representative of thirteen New England colleges, "no two of which," writes Professor Nathaniel F. Davis, its secretary, "have identical requirements for admission." The North Central Association of Colleges and Secondary Schools is a similar organization. The National Conference Committee on Standards of Colleges and Secondary Schools is just now considering questions relating to admission, particularly the question of time units. The Committee of Review of the College Entrance Examination Board will soon submit to that board for its consideration a report in regard to the Carnegie system of units.

Thus it is seen there is a movement toward a standardization of entrance requirements for colleges and universities. In this movement the rights and interests of the engineering colleges should be represented. At this particular time when there is a rapid increase in the demand for technical courses, the representatives of the technical institutions should be in a strong position to exercise a salutary influence on secondary education and at the same time improve the foundations of engineering education.

The committee believes that during the coming year the first thing to be done is to collect and tabulate information upon points and institutions already covered by the Carnegie Foundation and by similar organizations. After this is done the committee will endeavor to fill the gaps so that there will be a pretty complete collection of data as to present conditions. A similar procedure to that adopted in 1895 by the special committee on entrance requirements of the Society for the Promotion of Engineering Education will be followed. By the use of circulars asking for certain facts and expressions of opinions on certain matters, an attempt will be made to obtain information at first hand from the colleges offering instruction in engineering and from the leading secondary schools of the country which prepare students for technical colleges. Professor H. W. Tyler of this committee was secretary of the committee of the Society for the Promotion of Engineering Education which performed a most valuable service twelve to thirteen years ago, and thus the committee will be able to profit by his experience and expert advice, and begin its work where that committee left off.

To gather and tabulate the statistics and to summarize the opinions will require the services of a clerk. There will be also the expense items of printing and postage. It is respectfully requested by this committee that this department apply to the proper authorities of the National Education Association for an appropriation not exceeding $500 to carry on the proposed investigation.

The work of the Carnegie Foundation and the College Entrance Examination Board will be of great assistance to this committee, but those actually engaged in engineering instruction should correlate and digest their data and formulate recommendations from the point of view of engineering education. This committee should find out what variations in requirements still exist, what can be done to bring about greater uniformity, how, for example, the common branches can be eliminated from the secondary school, by what means instruction in mathematics and in science in secondary schools can become more efficient. After agreeing upon the subjects to be required, it may be possible to reach some decision as to the time to be given to each subject. It should attempt to decide what studies shall be required, what studies shall be considered as options, and what as electives. Only by following a very broad line of investigation can it learn the methods and conditions prevailing in different localities. Among matters worthy of investigation it should ascertain the truth of the statement which is often made that secondary schools treat the academic colleges a little more fairly than the technical schools. I should attempt to answer the following and similar questions:

1. Are the entrance requirements to the technical schools too high?
2. Do the present entrance requirements include a greater number of subjects than is desirable?
3. Do the secondary schools give us the right preparation in such subjects as English, or are the secondary schools and grammar schools slighting the fundamentals for matters of less import?
4. Is it desirable that a student entering a technical school shall be given physics or chemistry or other scientific subjects in the secondary schools, or should his training be as liberal as possible, leaving the scientific work to be given in the technical school?
5. To what extent can mathematics be given successfully in the preparatory schools?

These and similar problems represent the difficulties which the engineering colleges are wrestling with today. While appreciating the limitations under which the secondary schools labor in preparing a few men for college and a great many men for the world at large, it does seem to this committee that if those engaged in engineering instruction could get a little closer to the secondary schools, matters of mutual benefit might be discussed and some knotty problems solved.

It is recommended by this committee that a committee on entrance requirements to technical colleges be appointed by the Department of Secondary Education to coöperate with it in getting full information from the secondary schools.

The secondary schools might very properly have something to say about the normal scale of estimating entrance requirements recently worked out by the Carnegie Foundation.

In any distribution of time in secondary school curricula those engaged in that instruction can tell what is practically of advantage to the colleges and to the secondary schools. Among the schools there is a very great difference in the time allotted to the same requirement. The school which assigns the greatest number of periods to a subject does not always obtain the best results. It may be that this investigation will show that the preparation depends more upon the school than upon the time allotments in the curriculum and that it would be preferable for the engineering colleges to define the quantity required and to leave the school largely to itself in accomplishing the work.

If this committee on admission requirements can accomplish the work which it now plans to undertake I believe personally that it will perform a valuable service for the whole educational system of the country. The committee welcomes suggestions and would be glad of instructions from the Department of Technical Education.

Respectfully submitted,

FRED W. ATKINSON,
President of Brooklyn Polytechnic Institute, Brooklyn, N. Y., *Chairman.*
M. E. COOLEY,
Dean of the Department of Engineering, University of Illinois, Urbana, Ill.
FREDERICK A. GOETZE,
Dean of the Faculty of Applied Science, Columbia University, New York City.
A. MARSTON,
Dean of the Division of Engineering, Iowa State College, Iowa.
IRA O. BAKER,
Professor of Department of Civil Engineering, University of Illinois, Urbana, Ill.
HARRY W. TYLER,
Professor of Massachusetts Institute of Technology, Boston, Mass.
DEXTER S. KIMBALL,
Professor of Sibley College, Cornell University, Ithaca, N. Y.
Committee

FIVE-YEAR ENGINEERING COURSE OF STUDY

A. MARSTON, DEAN OF THE COLLEGE OF ENGINEERING, IOWA STATE UNIVERSITY, AMES, IOWA

It now seems probable that the present will prove to be a memorable date in engineering education, marking the close of its first great epoch, and the beginning of a second still greater.

During the first epoch, technical education has fought its way to a recognized equality with other education, and in the ideals of education, has placed "to do" on a par with "to know." Our ideal of the well-educated man is no longer the secluded scholar, engrossed in his studies even to forgetfulness of laboring humanity. Today, the ideal, educated man must be able to translate into action, for the service of his fellow-men, every bit of his ability to know, to search, to think. Moreover, today, scientific and technical knowledge have become such an important part of the world's total knowledge, that a man cannot be considered to have a broad education who has not given some study to science and technology.

Nevertheless we must confess that during this first great epoch, the aim of technical education has been almost exclusively the training of men for purely technical work. In engineering, for example, that education has been considered the best which best fitted men for purely engineering design and construction. If the path of a man with an engineering education led into a life-work outside of what is ordinarily regarded as engineering, he was considered to have wasted his college days.

At the present time, the world's demand for technically trained men has progressed beyond this point. It is no longer sufficient for the world's needs for society to have at command, for hire, the services of an isolated body of merely technical men, employed to secure the benefit of the practical applications of modern science. We have come to the time when the wonderful discoveries of science have so revolutionized the world and have become such an essential part of our civilization, that, on the one hand, some technical training has become necessary for the humblest workman, while, on the other hand, the members of the technical professions are being drafted into the world's widest activities.

Hence we have at the present time two great movements begun in technical education, movements apparently distinct, and even opposed, but which in reality are due to the same cause, and are essentially harmonious.

One of these is the development, as distinguished from professional technical education, of industrial or trade education, a development which is finding its main expression in manual-training schools and trade institutes. Facilities for such education must be supplied for such vast numbers of students, to meet modern conditions, that the high schools, rather than the colleges, seem destined, both by numbers and location, to be its principal agents, tho the colleges and institutes must play their proper parts by developing higher trade schools.

The other great movement is the liberalizing and broadening of professional technical education, which just now is finding active expression in many engineering schools in the establishment of five- and six-year courses of study. Thus California, Columbia, Cornell, Iowa State College, Massachusetts Institute of Technology, and Wisconsin have adopted optional five-year engineering courses, and Minnesota, compulsory. Nebraska and Michigan are adopting six-year optional courses, and most engineering schools located at universities have arrangements whereby a student can obtain both an A.B., or B.S., and an engineering degree in a total of six years of work.

Among both engineering educators and practicing engineers the main criticism of engineering education in recent years has been to emphasize the importance of broad, fundamental, and liberal training, as contrasted with narrow or special work in engineering details. In the transactions of engineering societies, and in papers in engineering journals, the leaders in the profession have been demanding broad training for engineers in no uncertain terms. Thus Mr. Robert Moore, president of the American Society of Civil Engineers, has said,

> The engineer must also know something of language and literature, of political science and of history, in order that he may correctly understand and evaluate the knowledge particular to his own calling. He who aims at the highest success as an engineer must be a more learned man than his predecessor of the last century.

Mr. L. B. Stillwell, consulting electrical engineer, New York City, says,

> The ideal education cannot be too broad. The aim should be to educate and train, rather than to inform. The engineering training might well follow a collegiate course.

In the proceedings of the Society for the Promotion of Engineering Education, and elsewhere, our most prominent engineering educators have similarly emphasized the importance of a broad foundation in engineering education.

Probably most of the engineering schools which keep closely in touch with their engineering alumni have been in receipt of expressions of opinions such as these, which have come to the writer from prominent engineering alumni of the Iowa State College: From W. C. Armstrong, terminal engineer, Chicago & North-Western Railway, Chicago, Ill:

> I have always been an advocate of the broader courses of study. I would therefore say that any scheme for lengthening the course of study should have for its first object the extension of those subjects which make for a liberal education.

From S. H. Heges, president Puget Sound Bridge and Dredging Co., Seattle, Wash.:

> If an engineering course could be laid out with the first four years partially of a general nature, and the last two years largely technical, it would seem a move in the right direction.

From M. J. Riggs, superintendent American Bridge Company's plant, Toledo, Ohio:

> More and more the engineer is to fill the higher place. We have reached the point where the full development of all our vast resources, the careful conserving and wise use of Nature's gifts to us, the active management and direction of our great industrial activities are coming into the hands and under the minds of the engineers.

Thus both the united demand of practicing engineers and engineering educators, and the most recent action of many of our strongest engineering schools indicate that a new era of broad engineering training is now beginning. Probably there would be scarcely a dissenter, at the present time, from the opinion that the ideal engineering education, were it possible of attainment, would be the equivalent of a complete college course, plus a complete technical course.

The fact is, as Mr. Riggs has pointed out in the quotation already given, that the engineer of the present and the future must more and more be called upon to direct the world's highest activities.

It is not merely that the highest engineering work calls more and more for men of the broadest judgment and character, with the highest executive abilities; there is, besides, an increasing demand for technically educated men for superintendents, managers, secretaries, directors, presidents, and owners of all large manufacturing and commercial enterprises, light, power, and transportation companies. In addition to this, there is need for men with engineering training in the public affairs of every community and even in the councils of the nation itself. It is not an insignificant sign of the times that one of the prominently mentioned vice-presidential possibilities at the recent national Republican convention was a famous engineer, and that one of the engineers from whom quotation has been made in this paper was recently a candidate for mayor of one of our large cities.

Society needs in its public affairs today the high honor, the absolute honesty, and the perfect fidelity to truth and to Nature's laws, which are the absolute essentials of high engineering success. In addition to these highest qualities, we need the technical skill of the engineer in dealing with franchises, and public utilities in general, transportation problems, commerce, manufacturing, labor, questions of public safety, the development and the conservation of our natural resources. Already one of our great states has placed its public utilities very largely under the direct charge of a commission which is guided by the expert advice of a large engineering corps, and which has most extensive powers in connection with rates and taxation. Already imminent danger of the exhaustion of our natural resources indicates plainly the necessity of expert technical skill in directing the policies of the nation.

The new era of broad opportunity now opening to the engineer demands a corresponding era of broad preparatory training. Recognizing then that the ideal education for an engineer would be the equivalent of a four-year general college course, plus a four-year engineering course, we may inquire into the different methods of approaching this eight years' ideal.

FIRST PLAN.—SEVEN-YEAR COURSES

Without any special selection of college studies, there are usually enough duplicate subjects to enable a graduate of any good college to complete a course in any good engineering school in three years, making the total time for both seven years. Probably every engineering school has a few students who are following this plan, having decided very late in their college work to take up engineering.

SECOND PLAN.—SIX-YEAR ENGINEERING COURSES

By special selection of electives in the college, it will be possible, if the college of arts will give credit toward its degree for a few studies taken in the college of engineering, for a student to complete an engineering course in two years after graduation in the college of arts, thus making the total time six years. Probably most engineering schools located at universities have had such an arrangement as this, definite or tacit, for several years, and it is one of the discouraging things in connection with higher engineering education that only a small number of students have availed themselves of this opportunity. The increased expense and time and the deferred age of entering upon life-work occur as among the reasons.

In addition it should be noted that, with this plan, the student is for four years almost entirely out of touch with engineers and engineering work, for he is under entire control of the arts faculty instead of the engineering faculty. When we reflect how very much enthusiasm for one's profession and close touch with all its activities have to do with success or failure, and with the overcoming of difficulties in securing an education, we must include lack of control by the engineering faculty as among the most important causes of the comparative failure, up to this time, of six-year engineering courses.

Nevertheless, a six-year engineering course, could the students be induced to take it, and especially if it were controlled by the engineering faculty thruout would come the nearest to ideal engineering education of any plan which is practicable at the present time.

Hence we find Nebraska and Michigan now outlining such courses in detail, for publication in their new catalogs.

However, in view of the past unsatisfactory experience with six-year courses, most of the engineering schools which are taking action this year toward broader engineering education are trying a compromise between the present and the ideal as follows:

THIRD PLAN.—OPTIONAL FIVE-YEAR ENGINEERING COURSES

California, Cornell, Iowa State College, and Wisconsin are offering optional five-year engineering courses, in which the work is outlined in detail for each year, and which are under direct control of the engineering faculty. The added year of work is in each case composed of cultural subjects.

Wisconsin also varies this by offering four-year engineering courses with one year of arts college work required for entrance.

The Massachusetts Institute of Technology will offer a general three-year scientific course, of such nature that a student who has taken it can complete any of the regular engineering courses in two additional years.

Columbia outlines a plan of elections in the arts college, whereby a student can obtain the B.S. and an engineering degree in five years of work, remaining, however, under control of the arts faculty for the first four years.

FOURTH PLAN.—COMPULSORY FIVE-YEAR ENGINEERING COURSES

Minnesota is taking the most radical action, and is abolishing its present four-year engineering courses entirely, replacing them by so-called five-year engineering courses, which include a considerable amount of cultural work. As, however, it is proposed to give the B.S. degree at the end of four years' work, it is expected that a large number of the students may drop out without completing the fifth year.

If the optional five-year engineering courses now being established at various schools should attract a large number of students, or if general engineering conditions should continue to develop as strongly toward broader and higher ideals as they have in recent years, it seems very possible that compulsory five-year, or even six-year engineering courses, or, what is equivalent, requiring one or two years of general college work for entrance to four-year technical courses, may be the logical outcome of the present experiments.

In the meantime, however, there are many considerations which are determining most of the engineering schools in favor of conservative action, and against compulsory five-year courses at present. Engineering courses which can endure, like other phases of civilization, represent the action of many general forces and laws of demand, resulting from actual needs of society. These forces and laws of demand do not change suddenly, but slowly, and the engineering school which would not run risk of a Quebec bridge failure of its educational structure must not get too far outside of established principles of engineering education.

In addition to these general considerations there is the problem of the ways and means of the students. The writer is glad to bear testimony corroborative of that of many others, that much of our best material for the making of engineers consists of the young men of little means, from the farm, or the small town, or from the sons of mechanics, who must by their personal labors supplement home sacrifices to meet the expenses of a college course. Within a few years the expenses of college courses have been greatly increased, by higher tuition fees, by higher prices in general, and by more expensive standards of college life. Besides this, entrance requirements have gone higher and higher, making the preparatory education more costly.

To add, at the present time, two compulsory years, or even one, to the four already required for engineering courses, may be to shut the door of opportunity to men who would otherwise become our very best engineers.

The introduction of five-year courses, parallel with four-year courses in our universities and colleges, must bring up again the question of engineering degrees. In the granting of engineering degrees there is already altogether too much inconsistency and lack of uniformity in the practice of our American schools. While it is true that most of the engineering schools in the United States grant only a bachelor's degree at the end of four years of college work, yet even this bachelor's degree is different at different institutions, and we still have a few schools which grant the C.E. and M.E. degrees, etc., for four years of work.

The writer believes that the engineering schools should adopt uniform regulations, calling for the use by all of some one form of bachelor's degree for graduation at the end of four years of college work.

The professional degree of C.E., M.E., etc., could then be kept for five or more years of work, the M.C.E., for still more advanced work, and here, also, a uniformity of practice ought to be secured. Such uniformity would give to each degree a definiteness of meaning which it does not now possess.

It would be a mistake to suppose that the engineering schools which are adopting five-year engineering courses anticipate that such courses will prove a solution for all the problems of engineering education, or even that they will at once attract large numbers of engineering students. We are offering such courses because we believe that the times make it our duty to offer opportunity for broader engineering training to those who can be induced to take advantage of it, because we believe that such courses represent one step in advance along the inevitable line of progress in engineering education, and because we have absolute faith in the higher and larger opportunity for service which must come to the engineer of the near future.

DEPARTMENT OF RURAL INDUSTRIAL EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—E. C. Bishop, deputy superintendent of public instruction, Lincoln, Nebr.
Vice-President—D. B. Johnson, president, Winthrop Normal and Industrial College, Rock Hill, S. C
Secretary—E. E. Balcomb, Department of Agriculture, State Normal School, Weatherford, Okla.

FIRST SESSION.—Thursday Morning, July 2, 1908

The department met in the Plymouth Church, Cleveland, and was called to order at 9:30 o'clock by President Bishop.

Professor B. M. Davis of Miami University, Oxford, Ohio, read a paper on the subject, "What Constitutes Successful Work in Agriculture in Rural Schools?"

"The Work of the Normal School in Preparing Teachers to Teach Agriculture" was presented in a paper by Henry G. Williams, dean of State Normal College, Athens, Ohio.

This paper was discussed by Charles Evans, superintendent of schools, Ardmore, Okla., and W. L. French, Department of Agriculture, State Normal School, Peru, Nebr.

Hon. Elmer Ellsworth Brown, United States commissioner of education, presented "Notes on National Aid in Agricultural Education."

President Bishop then appointed the following committees:

ON NOMINATIONS

H. G. Williams of Ohio
E. D. Cameron of Oklahoma
W. L. French of Nebraska

ON RESOLUTIONS

Albert B. Graham of Ohio.
Charles Evans of Oklahoma
W. W Stoner of Nebraska

SECOND SESSION.—Thursday Afternoon, July 2

The department met in the Epworth Memorial Church in joint session with the Department of Technical Education.

An address on "What Is Agriculture—Elementary—Secondary—College?" by A. C. True of the United States Division of Experiment Stations, Department of Agriculture, Washington, D. C., was read by Dick J. Crosby of the Department of Agriculture, Dr. True being absent on account of illness.

A discussion followed this paper, led by C. F. Curtis, dean of the Division of Agriculture, Iowa State College, Ames, Iowa, and others.

THIRD SESSION.—Thursday Evening, July 2

The department was called to order in Plymouth Church at 8 o'clock.

The Committee on Resolutions reported as follows:

Whereas, The need for conserving our national resources, the call of the farm for young men and young women whose ideals of society and labor are realized in country homes and in the field, the use that can be made of the school in preparing rural youth to pass off the shackles of drudgery and enter into the joy of work in a day mental, moral and manual; therefore, be it

Resolved, (1) That the Department of Agricultural Education of the National Education Association encourage the normal schools to offer courses in applied science that will meet the need of the teacher of agriculture in elementary rural schools, and of those teachers in secondary schools whose surroundings are distinctly rural.

(2) That some study of the conservation of agriculture resources and the social improvements and enrichment of rural living be made such a part of courses in sciences, literature and sociology as will properly prepare teachers to become effective agents in elevating rural people to a higher plane of living and of making a living.

(3) That members of Congress be urged to appropriate liberally to state normal schools for the preparation of teachers of the agricultural sciences in the elementary and secondary schools.

Further, *Whereas* Great Britain has been sending teachers to this country for the purpose of studying methods of agriculture and other industrial education, we earnestly urge presidents of colleges and normal schools and boards of education to make it possible by financial and other inducements for our American teachers to make similar studies abroad, Be it further

Resolved, That the President appoint a committee to suggest to this section at its next meeting a modification of the present method of teaching the sciences in our regular high schools so that a graduate may be qualified to teach the rudiments of agriculture in our rural schools and at the same time be eligible to enter college.

The report, was, on motion, adopted.

The Committee on Nominations, thru its chairman, H. B. Williams, of Ohio, reported the following for officers of the ensuing year:

For *President*—David B. Johnson, president, Winthrop Normal and Industrial College, Rock Hill, S. C.

For *Vice-President*—Albert B. Graham, Ohio State University, Columbus, Ohio.

For *Secretary*—E. E. Balcomb, Agricultural and Mechanical College, Stillwater, Okla.

On motion, the secretary of the department was instructed to cast the ballot for the active members present for the nominees as presented. The ballot was so cast, and the nominees were declared elected officers for the ensuing year.

The following papers on the general topic of "School Gardening" were presented and illustrated with lantern slides:

(1) "School Gardens as Conducted by the Cleveland Public School," Charles Orr, director, Public Schools, Cleveland, Ohio.

(2) "Work of the Home Gardening Association at Cleveland," by Starr Cadwallader, treasurer, Home Gardening Association, Cleveland, Ohio.

(3) "Development of School Gardens at the National Capital," by Susan B. Sipe, Normal School No. 1, Washington, D. C.

The president appointed the following committee in accordance with the resolution adopted by the department to investigate and report at the next meeting on the practicability of arranging a course of study for high schools that would, at the same time, prepare pupils for life and to meet the entrance requirements of colleges and universities:

Albert B. Graham, Ohio State University, Columbus, O.
E. E. Balcomb, Agricultural and Mechanical College, Stillwater, Okla.
Clarence H. Robison, State Normal School, Montclair, N. J.

The department then adjourned.

E. E. Balcomb, *Secretary.*

PAPERS AND DISCUSSIONS

WHAT CONSTITUTES SUCCESSFUL WORK IN AGRICULTURE IN RURAL SCHOOLS?

BENJAMIN MARSHALL DAVIS, MIAMI UNIVERSITY, OXFORD, OHIO

Education to meet efficiently the demands of society must be dynamic. It must be a living, active agent. As soon as one demand is met education in that particular direction tends to become static. Organization necessary for effective school work requires definiteness, even to details. When once crystallized into a course of study and methods of procedure, when formulated into a textbook, when taught successfully by an average teacher, a school subject becomes a fixture in an educational system. Times may change when the subject no longer fulfills its important function; but it continues to exist and to hold a prominent place in the curriculum.

While it is making its real contribution to education by serving society, its position is unquestioned. But when conditions in society arise making new demands upon an educational system, the old and once useful subject is justified by attributing to it a peculiar virtue known as cultural value.

No progressive civilization has escaped the difficulties attending the transition of parts of its educational system from the dynamic into the static phases.

The modern Greeks are said to be failing as a nation largely because of their reluctance to modify an education which embodies the ideals of the old Greek civilization. The whole trend is to develop a literary and professional class far in excess of the needs of the nation.

Our own development as a nation must be attributed, in part, to the readiness with which our education in all its departments, especially in its technical and professional aspects, has met the demands of progress. Indeed in cities, for our progress has been mainly urban, plans to make the schools fulfill these demands, while always commendable in spirit, have not always been well advised. Most of the so-called fads have city origin, and a fad in education is merely an ineffectual attempt to meet a social need.

Contrasted with this adaptive tendency, we find rural education characterized by a conservatism which clings to old ideas and old methods, and by a tendency, when changes are made, to employ educational imitation instead of educational adjustment. It not only tends to remain static but is little influenced by progress in other activities in life.

The movement for agricultural instruction represents an effort to make rural education dynamic. There is a growing sentiment that agriculture in some of its phases may function as a school subject not only for the direct contribution which it may make, but, in a far more important way, for the influence it may have in connecting school with life.

What constitutes successful work in agricultural instruction is not easy to answer, and if a satisfactory answer were to be given today it would not hold in a few years, for successful instruction would continually develop new conditions which in turn would exact new requirements. Just now an adequate consideration of the question must take into account the present static condition of rural education which expresses itself in the conservative attitude of the rural population toward all matters educational. Taking the country as a whole, in spite of the propaganda for agricultural education which is spreading over the land, there is as yet little recognition of the fact that rural schools are capable of more than they are now doing.

The American farmer has been forced thru economic stress to abandon his old farm machinery and install new, but he is generally content with the old educational machinery which was installed to meet pioneer conditions. To him the rural school, or any school in fact, is linked somehow with the mysteries of books. It is hard to persuade him that the school may even materially aid in the prosperity and progress of the community. He must be shown, and the demonstration must often be on the low plane of dollars and cents. He is especially lacking in appreciation of scientific achievement and expert opinion. If the schools could do nothing else, their work in agriculture would be amply justified if, thru its influence, in another generation this attitude could be changed.

The formation of this section of the National Education Association is in itself an expression of the confidence of representative men and women in the movement for agricultural education. The question of what constitutes successful work in this subject in rural schools is a fitting one to be discussed at this meeting. I have tried, by way of introduction, to point out very briefly a few of the general aspects of the question. As a further consideration of the subject, I wish to present a sort of cross-section of the work and views of some of those in various parts of this country and Canada who are making successful use of the subject, or who are actively interested in the improvement of rural schools. In order to obtain a consensus of opinion on the nature of successful work, on the difficulties, on the evidences of successful work as shown in attendance, in attitude of patrons, and in interest in other school work, these points were embodied in a circular letter and sent to about four hundred men and women in various parts of this country and Canada who were known to have some interest and experience in the promotion of agricultural instruction as a means of improving the rural schools. This letter met with generous response not only in numbers but in full answers. There is abundant evidence in these replies that the subject is being seriously considered as a real factor in rural education. One of the most significant points in this connection is the present attitude of the state departments of education toward the subject as contrasted with their attitude a few years ago. About five years ago in response to similar inquiries sent to over thirty states, brief and unsatisfactory replies were received. Many failed to respond at all. With this experience in mind, the full replies from practically all the state departments addressed came almost as a revelation. Without exception the replies indicated a lively interest in the question. The following extracts present a good summary of opinion from the standpoint of administrative heads of these departments:

> We have a law in this state requiring agriculture to be taught in the common schools of the rural districts, but we have thus far not been very successful in our efforts for the reason that teachers are very inadequately prepared. We are meeting the need in a measure in our county training schools, of which we have now sixteen in operation, and we are also giving all the help we can in our county institutes. It is a problem I suppose each state has to meet in accordance with its local needs and conditions. Our country teachers are changing at the rate of one-third the total number each year or nearly that,

and the salaries are so low that we can scarcely expect teachers to qualify themselves very efficiently for their work. To sum up, we are securing all the aid we can from our county training schools, from our teachers' institutes, from our high schools, from our agricultural college, and from our normal schools.

Students are being trained in this special work and the indications are that the work will be introduced into the public schools in the near future.

In my opinion the most successful work in agriculture is in our township graded schools and consolidated schools, where both laboratory and field work are accomplished.

I do not believe it is possible to do much in the one-room district schools for the reason that teachers are not qualified to do the work there. We encourage the teaching of agriculture in the district schools, however, when we find teachers who are well qualified to do the work. If we insisted on having agriculture taught in all the schools without reference to the qualifications of the teachers to do this work we should retard the movement, rather than help it along.

The teaching of agriculture in our public schools is in its incipiency in this state. While we have a textbook on the subject in our public-school course, it is being taught in a very indefinite way. We are trying to develop an interest in the subject by getting three or four hundred teachers to take the course in agriculture at the summer schools of the state university.

Our main effort must be to prepare teachers who have taste and love for that kind of work and that kind of life.

The subject of teaching agriculture in the public schools has been given but little attention until recently. During the present year there has been quite a stimulus along the line of introducing agriculture in the rural schools. Many of the county superintendents are encouraging their teachers to teach the subject this year.

About all that can be done at present is to relate the general work more closely with agriculture, to educate our children so that they can read a farm treatise or agricultural journal intelligently, and to put them upon that intelligent inquiry that will arouse their desire to attend some agricultural college or high school.

The replies of over one hundred persons, representing geographical distribution of thirty-three states of this country and three provinces of Canada, were tabulated under the following heads:

a) Nature of agricultural instruction that seems to be most successful under average school conditions.

b) Chief difficulties in the way of using agriculture as a school subject in schools of average rural communities.

c) Added interest in school work that may be attributed to such instruction, as indicated (1) by increase in attendance in grammar grades or high school; (2) by more interest and support on part of patrons; (3) by reaction on other school work, i. e., by helping other school subjects.

A general summary of the replies on nature of successful work brings out two things: (*a*) The most efficient work is to be found in the high schools of rural communities; (*b*) A great many phases of agriculture are adapted to successful use—the success depending not so much upon the particular subject as upon whether it touches the life of the community. The latter point, which is very generally emphasized, is well expressed in these words of a Wisconsin writer:

> In rural schools, the most successful agricultural instruction is that which begins with the agricultural activities of the local environment, and which finds in these activities certain problems which then become subjects of investigation, and even experiment in a school garden. In town schools the best plan is to begin with the school garden and emphasize the aesthetic side; then work out to beautify the city, and on this basis work out to the great typical processes of agriculture.

Arranged in order of frequency in replies the following is a list of various kinds of work said to be in successful operation:

Textbook accompanied by experiments.

Garden with experimental plots for plant breeding, soil inoculation, and other soil experiments.

Simple experiments such as determining soil ingredients, plant food, effect of fertilizers, seed testing, etc.

Contests of various kinds intended to awaken interest of patrons as well as of pupils.

Boys' clubs, including nature-study clubs.

Collections of economic plants, weeds, and weed-seed, and insects.

Seed germination, including tests of viability.

Use of bulletins as supplementary reading.

A few writers call the attention to the importance of making better use of the sciences in the high school. One of them suggests, for example, in connection with the study of physics: the consideration of the soil, capillarity and porosity of the soils, film and gravity water, evaporation and mulches, setting the plow, adjustment of collar and hames, osmosis in plants, ventilation, etc.

Reports on the difficulties of agricultural instruction are monotonously alike. The same opinion is expressed by all on two points: lack of efficient teachers, and indifference and sometimes opposition on the part of the patrons toward the introduction of agriculture in the schools. Crowded curriculum, short school year, and scattered schools are also prominently mentioned.

A few quotations on these difficulties may be of interest:

> Mechanical minds of the rural school teachers. They must have the knowledge which they are to teach in some definite working form so they can prepare the night before and so that the children under the prevailing plan of ten-minute recitations may repeat it over and over again in the so-called study period.

> There is a lack of interest and enthusiasm on the part of those supervising the schools.

> Non-interest of teachers. Teachers not to blame. They were seized as babies by a course of studies, placed in the school high chair and were fed ever after with material that could be brought to them. They were carefully weaned from large and active things that could not be brought to the high chair.

> Farmers say that it is preposterous to think that the little pink-cheeked school marms can teach their children to farm.

> Lack of interest in agricultural work on part of children, many of whom have to do slavish toil at home on the economic scale. Agriculture is too much a synonym for hard work according to the usage of the fathers. It is really the knowledge of the scientific principles underlying the subject with which not only children but men should approach the subject.

As to the success of the subject as indicated by increase in attendance, by added interest on part of parents and pupils, and by reaction on other school work there was not a full expression of opinion. In many instances agricultural instruction has not been given long enough to justify an opinion on these points. Of the replies given, most of them indicate a gain, which might be attributed to the influence of agriculture, in all these particulars. In spite of the difficulties attending its general introduction at present, its usefulness as measured by these tests is being demonstrated in many places. This point may be more apparent by reference to parts of a few letters:

> It has added interest on the part of pupils in seventy-five per cent. of districts; and on part of patrons in fifty per cent. of districts. We have secured about twice as many graduates from the common schools this year as ever before. I believe that agriculture assists in holding the boys and girls thru the seventh and eighth grades.
>
> I am convinced that the subject of rural school agriculture has aroused among the pupils of the country-school districts a marked interest in school work by adding a freshness to recitations which was formerly absent, and which is still lacking in many schools not doing anything with this subject.
>
> I know of boys who are in the high school who have received their inspiration to take up advanced work because of the study of agriculture. I find that the study of this subject has been a great preparaton for science work in the high school. Pupils who have done such work are far in advance and generally show much more interest in science than others who have not had such preparation.
>
> In nearly all cases it helps the study of other studies. It improves the boy's observing power, and creates in him the desire to know more of the nature that produced him and makes him interested in the question of education generally. All this is based upon what I have observed in this state and other places.
>
> The introduction of agriculture into the curriculum of the schools has influenced the whole system and is destined to influence it much more. The motor side is being emphasized in education. This reaches the motor type. The "point of contact" is provided in just such work. The ultimate career, efficiency, and character of these types, that might otherwise be lost to society, are things that cannot be estimated in their power for good.

It is evident that if this fragment of a cross-section of the work and views of those interested in agriculture for the improvement of rural schools is at all representative, and I believe it is, altho the subject-matter varies much in different localities, the chief element of success lies in its possibilities of making school life part of the community life.

If the subject is to have a permanent and increasingly important place, it must have the support of the community. Without efficient teachers who are able to make the subject worth while such support cannot be secured. Nearly every year the legislature of some state places agriculture upon the required list of studies to be taught in the common schools. But reports from these states are not particularly encouraging. Efficient teachers are not created that way. This brings us to the most serious part of the whole problem. As already indicated the subject has proved itself. It has done this over a very wide geographical range. The question no longer concerns the subject itself but well-qualified teachers.

The agricultural colleges while making contributions in the way of literature are not supplying teachers, even to high schools. Most of the normal schools are fitting teachers for city employment. Great numbers of our rural school teachers are now being drawn from the graduates of small high schools. It would seem then that the efforts of those who are interested in agricultural education as it affects the rural-school problem should be centered on the small rural high schools, and to secure for them principals who are able not only to direct agricultural instruction but who are capable of, and interested in, making the school serve the highest interests of the community.

As a further investigation of this subject an inquiry as to the source of supply of rural high-school teachers, particularly of rural high-school principals, would be interesting and profitable. What training is being given to these teachers that may help them to adapt the work of a high school to the needs of a particular environment? Altho the discussion of this question is beyond the limits of this paper I venture the suggestion that another static element will be found which is nearly, if not quite, as formidable as the attitude of the rural population itself.

After all, the efforts toward the introduction of agriculture in our schools are part of a larger movement in education. What constitutes successful work is not determined by subject-matter, nor even dependent upon special training for one class of teachers, but rather in the way it catches the spirit of this greater movement which is trying to adjust our education to the needs of a progressive civilization, a movement in which true culture is not regarded as a vague ideal, but something that expresses itself in real service to humanity.

DISCUSSION

I. *THE WORK OF THE NORMAL SCHOOL IN PREPARING TEACHERS TO TEACH AGRICULTURE*

Charles Evans, superintendent, City Schools. Ardmore, Okla.—It is altogether fitting that in this first gathering of the newest section of the National Education Association the first appearance of the newest state of America should be recognized:

First, because of its native agricultural wealth. Stretching thru a little more than three degrees of latitude, yet such is the splendid balance of Oklahoma's climate end the diversity of its soil that she embraces products peculiar to three zones. She produces as much cotton of the South as North Carolina, as much of the wheat of the North as Michigan, and as much corn of the great Central Belt as Kentucky.

Second, because its active energies must lie in this field until the course of empire places the center of population and commerce closely about or upon the geographical center.

Third, last, and most far reaching of all, because the founders of this new commonwealth have sent you here today not simply a message of good will but a declaration of support on this idea of agriculture. Here is an article of agricultural faith, taken from their twentieth-century constitution, called by some "The Twentieth-Century Declaration of Rights," which says: "The legislature shall provide for the teaching of the elements of agriculture, horticulture, stock feeding, and domestic science in the common schools of the state."

Truly in the light of such sincere offerings of her agricultural faith Oklahoma has a right to the respect of this worthy movement.

In stating Oklahoma's position on agricultural education, her way of reaching the question thru the schools to the teacher is fundamentally stated. It occurs to me that in that constitutional convention must have been some man who was made to get, in his boyhood rhetorical sweat-shop, old Quintilian's Rule for Clearness. You remember it: "So speak that one not only may understand, but that he must understand whether he will or not." So when this constitution maker took hold of this agricultural clause he exclaimed, "Oklahoma's blessings are mainly gifts of her fertile soil and salubrious air. Touched by untrained minds her hills and valleys now yield untold harvest. What the influence of science and soil-education upon her sons and daughters would be only the imagination could conjecture. But suggestion to legislatures will but be evaded. Providing fine institutions of learning will not suffice. Ah, Quintilian's old rule at my elbow —Article 13, section 7—the legislature shall provide for the teaching of the elements of agriculture, horticulture, stock feeding, and domestic science in the common schools of the state. There, that reads so that the legislator, the state superintendent, the state normals, and university, with the teacher of the public school, may not only understand, but they must whether they will or not."

Under the inspiration of this article the first legislature of Oklahoma drafted some laws on agricultural education that for their penetration and consolidation of the school mass on one great theme are without a parallel in the history of this nation or any nation, perhaps. Dr. J. H. Connell, president-elect of the State Agricultural and Mechanical College in conversation with a celebrated educator laid before him the agricultural laws as enacted by the recent legislature. This man with expressions of wonder said, "No, Connell, you cannot make me believe that." "Why?" "Because there never was a legislature on earth that had enough sense to make such splendid laws as that."

The gist of this law is that agricultural education must go on in every institution under the state. The strong departments which have been maintained in the normal schools heretofore will be strengthened, while in the Agricultural and Mechanical College it is chief, of course. Appropriations for five or more secondary schools of agriculture, to be placed in such parts of the state as farm interests demand, were made. These will be close links between community or school districts and state sections or state normal school districts, which closes the circuit completely from the one-room public schools up to the Agricultural and Mechanical College.

Now, since there was a chance that all these agricultural stations should get self-centered and absorbed and forget each other there was a demand for a Man, a man who, by keen insight, and keener outsight, could dispatch to the various stations such messages as "Wake up"—"Close up"—"Get right"—"I am coming to help." A man who knows agriculture and everybody knows that he knows. It is the best part of my answer to the question toward which I am supposed to address myself when I say Oklahoma felt deeply this question of how to make her state normals helpful, and answered it by creating the office of supervisor of agricultural education. And may I not add further that in searching for a man she found him in one whom you have honored and who has honored this educational section by helping bring it into existence, Professor E E. Balcomb, of Weatherford, Okla.

It may seem that I have talked only of what my state is doing to prepare for this great work and left the point of discussion untouched, but if I have localized and narrowed my view it is to secure the power which comes and could only come from the new and unparalleled position taken by that state. Let Oklahoma's three normals teach the great throng of teachers which comes annually to their doors the elements of agriculture in field and laboratory as the state demands; let them be centers of farmers' annual institutes, as they must be; let them articulate by press and bulletins with universities above and secondary and primary schools below, as they must; let them send out their professors of agriculture to lecture and hold institutes for counties, thereby placing in every summer institute a representative normal man, as they must; let them be touched to duty and inspiration by the capable and vigilant supervisor of agricultural education of the state as the law demands, and you have that breadth, that depth, that vital answer to the question, "How can state normals assist in agricultural education," which a great western empire wonderful in its individuality can give and better still has given.

II. *THE WORK OF THE NORMAL SCHOOL IN PREPARING TEACHERS TO TEACH AGRICULTURE*

W. L. FRENCH, STATE NORMAL SCHOOL, PERU, NEBR.

The wording of the topic assumes it for granted that agriculture in some form should be a positive and integral part of the subject-matter taught in our public schools. It also assumes that the reasons for such instruction are both obvious and sufficient.

It then becomes the privilege and the prerogative of the normal school to determine what that work shall consist of. This is true because of the relation the normal school sustains to the public schools in shaping their educational policies and in training the teachers for the public schools. It is the province of the normal school to select material from the wide and varied courses of our higher institutions of learning and simplify. adapt, and disseminate it, according to the peculiar needs of the children to be taught. As the mother bird goes forth in search of food for her young, scrutinizing, rejecting, selecting, and, in the wisdom of motherhood, feeding her dependent ones, so must the normal school scan the whole field of human endeavor and with all diligence and caution find that which will best supply the needs of her charges and give it to them in the quantity and quality and manner best suited to their conditions.

Agriculture as a science in the public schools is new and untried. I believe if it is properly handled it can be shaped into a course that will lead to true teaching in all subjects instead of that stilted, stifled, mechanical routine which, by its hollow clattering, rings the death-knell to the interest and enthusiasm of our rural children for school work.

In order that we make no misfit in selecting what to teach, let us apply the tailor's tapeline to the minds and experiences of our country children. No hand-me-down course will do here, for it will be used only under compulsion and be discarded at the earliest opportunity

Call to mind the experiences of a family for a day on the farm. Out of bed at break of day! To the chores—to breakfast—to the fields—each one to the work he can do the best. It is a veritable hive of thrift and industry where there is "something accomplished, something done," and each one feels that he has "earned a night's repose." Already the farmer has appropriated to himself many modern conveniences and is buoyant with hope for better things to come. He is ambitious for his children to have opportunities for development commensurate with the deserts of a happy, honest, hard-working people and naturally looks to the public schools for help. But what do the children find on entering school? Their teacher is a stranger to them, perhaps, and, in many cases having been raised in town or in the city, is unfamiliar with the conditions of their home life. Even if she has at one time been one of them, she has received her training, education, and inspiration for teaching from sources entirely foreign to the country children. What subject in the curriculum bears directly upon the interpretation and embellishment of modern rural life? What books tell the little farmer that his is a calling in life worthy of his highest ambition and may be fraught with health, wealth, and happiness? Instead, both books and teacher have a tendency to spirit him away from the scenes of his infancy, interest him in other lines of activity, and, by ignoring the conditions of his home life, lead him to feel, by a negative process of teaching, that the place to achieve greatness is anywhere but on the farm. This is wrong. It is undoubtedly true that a people must find in their own environment the material upon which to base their education. To go from the known to the related unknown is no new theory. To establish any other position than the home and the farm as a common center upon which to turn the illuminating rays of educational principles is unnatural, distorting, and productive of great harm to rural children.

What then would be the most helpful and interesting line of educational development for these boys and girls? There can be but one answer. It should be such a line that will start them to thinking of agricultural affairs. They should develop a taste for agricultural study and investigation, a desire to know and read about and do things that pertain to the success and welfare of their homes. Above all they should increase respect for their work and a pride in their calling. "Then their pleasure in home work will be quickened; the dreariness of dull farm labor will disappear, and the attractions of town and city life will cease to lure—not because the latter becomes less attractive, but because the former becomes more attractive."

Many of our people must of necessity, if not from choice, follow agricultural pursuits for a life-work. Why not then place before them knowledge of things with which they come in daily and lifelong contact? Illuminate and dignify the strenuous and too often irksome labor by teaching the applications of the natural laws and principles which underly successful farm operations.

It is distressing to observe how foreign the instruction given in our common schools is to the lives of those who attend them. The textbooks tell of things the children's eyes have never seen, and grotesque indeed are the mental images as they grind out their tasks in the abstract.

An incident or two will illustrate this. A class of three in arithmetic was assigned an advanced lesson in stocks and bonds. Two were of foreign descent, and handled the English language rather poorly. The next day the teacher asked: "Mary, what is meant here by stocks?" Mary replied in all earnestness, "Well, I think cornstalks." The members of that class have never yet had any personal knowledge of stocks or bonds but we have all lived in most intimate and constant relations to cornstalks.

My father tells how he, in school, was compelled to stand crouched under a table until he learned by heart "a future contingency is best expressed by the subjunctive present, but a mere supposition assumed as a fact requires the indicative mode." What a delightful inspiration that must have been to him all his life as he cared for his horses, fed his hogs, and worked in the field.

We would ask for a more rational order of things. Not that each school district should own and operate a farm in connection with the school, maintain a herd of domestic animals to illustrate the principles of stock-raising and dairying, or provide a garden or orchard for the use of the public schools. This would be as absurd as the existing extreme. We should, however, give such training as will enable the student to enter into a sympathetic understanding of the principles underlying these operations, and use for illustrations the very things found on the farms and in the homes We should teach them the important facts about soils—not chemistry, geology, or physics. We should teach them the important facts about the plants of the farm and garden—not botany. We should teach them the important facts about the domestic animals, birds, and insects—not zoölogy.

It is the personality of these things that surround country life which the children need to know. When we form a new acquaintance, we do not proceed in any anthropological order to determine what kind of a person he is. We note his actions, his conversation, his likes and dislikes; we watch his performances when surrounded by these conditions—then those—his business traits, his social traits, and thus it is that we come to know people. In just this way children should be led to know the things of their homes and surroundings, and the only way to do it is to bring them into constant sympathetic visitation with the things that have an important bearing on their daily lives.

The illustrative phase of this work is an absolute necessity. No teacher can succeed without it and there is no reason why she should not use it. The soil from the school garden, the grains, the vegetables and flowers, the domestic animals on the near-by farms, the birds, the insects—these are all about and are themselves the open book of nature without the use of which the class work falls short of the mark.

To make sure that I am understood on this point, let me call attention to one instance where the value of illustrative material was made clear, and this is a typical case. In the West the conservation of moisture is an important topic and we lay great stress upon it in our classes. During my leave of absence, Professor Gregg, of the Department of Biology of the Nebraska State Normal at Peru, taught the agriculture. After having taught the class in his inimitable way from the textbook how moisture is conserved by a soil mulch, he brought before them, a class of 138 students of average ability, this simple apparatus: Two pails, each filled with the same kind and amount of soil, were suspended upon a balance. This soil was thoroly moistened, then allowed to form a crust on top. In the presence of the class he stirred the surface of one pail and left the other untouched, and asked for a vote as to which pail would lose moisture the more rapidly. One hundred students voted that the pail which was stirred would lose its moisture the faster, and thirty-eight that the crusted pail would dry out first.

We believe it is entirely possible for the average teacher, having had a reasonable amount of instruction, to grasp the meaning and intent of this line of work. When agriculture has received half the attention that is given to arithmetic, grammer, history, and geography, our teachers will be able to present this subject with even greater efficiency than they teach these at present. Teach them a little more about plant roots and not so much cube root. Let them calculate the exchange of soil moisture and fertility for bountiful crop production and a little less of exchange of foreign currency. Let them compute the partial payment that the unprofitable cow gives in return for her feed and care instead of taking days to determine the exact number of cents due John Jones on that miserable note that has been hanging fire for the last five years. Do this and the objective, tangible, first-hand material will so vitalize the country and village schools that they will no longer mark time with dead motion and be an isolated operation foreign to the experiences of country people, but will be a center for intelligent constructive growth for good in the community.

This work can be planned and organized by a few leaders, but the teachers of the public school must be the ministering servants to carry it to the minds and lives of the children. In Nebraska we have 20,000 boys raising corn for the international show, and they need teachers who know enough about corn, not only to talk intelligently about corn, but actually to assist them and give directions how to prepare ground, plant, tend, and select this corn.[1] The teacher must believe in this work. She must learn it; she must know how to plan it so that the children can understand and do it.

Such education will not destroy the appreciation of the farmer-boy for history, literature, mathematics, and the like. It will give him a relish for them. He will be as much delighted as of old to learn how the "cackling of geese saved Rome," and the cackling of the hen also sends a thrill of joy thru his being as he thinks of another prospective prize bird for the next poultry show and how the books at the grocery show a balance to his credit.

He will learn the story with as keen an appreciation as ever how the "neighing of a horse made Cyrus king," and as the nickering of his own faithful beasts greets him in the early twilight of the crispy morning he will feel a bound of pride for this mark of appreciation for the balanced ration and proper care he now knows how to furnish.

"The lowing herd winds slowly o'er the lea." It did for Thomas Gray, but the cows do not cease to be an object of interest when they reach the barnyard gate. The farmer-boy lets down the bars, houses and grooms them with a sympathetic hand, and as the rhythmic thuds resound from the milk-pail he whistles a merry tune in unison, and wonders whether Bessie, Boss, or Brin will win out in the friendly contest for pounds of milk and percentage of butter fat.

To give such instruction that will enable the teacher to secure these results is the work of the normal schools in training teachers to teach agriculture.

SOME NOTES ON AGRICULTURAL EDUCATION

ELMER ELLSWORTH BROWN, U. S. COMMISSIONER OF EDUCATION
WASHINGTON, D. C.

I should like to recall a view or perhaps a sentiment—it is vague and elusive at best—which I can now recognize as one of the forces at work in the society in which my boyhood was passed. I think you will recognize it, too, as one with which you have long been familiar, tho it is not at all certain that I shall be able to give any adequate account of it. I refer to that spirit of loyalty to the humdrum, necessary work of life which sometimes shows itself in a half-wistful seeking for some sign or footprint of the greater concerns of the world in these very common things of every day. It is some intimation that the great and important things are not all of them remote, but that if we could see more clearly we should find them hidden away, in some wise, among the plain facts of a routine life of toil.

This is a very imperfect putting of the case, but I can only trust that some of you will piece out my poor words from your own rich experience, will find the things I speak of back in some unhackneyed corner of the brain, and will answer to my indictment, "Even so, it is so." I know that the thing was present and very much alive in the half-consciousness of my boyhood, and I have found it cropping out in other lives. It is the spirit that rejoiced when Will Carleton found a mild and genial poetry in the familiar things of a poor life on the farm, and that has given a more enthusiastic welcome to the subtler insights of James Whitcomb Riley. It felt the scientific honor, even more than the prospect of a profitable sale, when a railroad survey party crossed the farm, or when the state geologist inspected its outcropping of limestone or its hint of petroleum or coal. It straightened up with new dignity when the granger movement gave promise not only of correcting burdensome discriminations, but of playing a part in state and national elections. It cut out from the magazine a woodcut of Millet's "The Sower" and pasted it on the wall, and it blessed the artist who could make men see the majesty of a man's work in the field.

To find that our daily task joins on to the ideas which make the great world of ideas—that is the discovery which many a boy and girl has made with the joy of a great surprise, and many another boy and girl have longed for it without knowing what the hunger was, deep down in their uncorrupted souls. And just about as blindly and unconsciously our education has been groping after this same unrealized end—to bring home to the plain day's work the ideas that make our world of thought, to hitch our little wagon to a star. That is what the new movement in agricultural and industrial education, as I see it, is aiming at. And that is what makes this new movement not only a thing to be reckoned with theoretically and practically, but a thing which lays strong hold upon our very affections and emotions.

I do not pretend to approach this subject with cold analysis, for it touches upon aspirations and sentiments which were very intimate to my own boy-life, and I am sure they belong to the innermost life of many a boy and girl of this later day. That is to say, they belong to our common humanity: and whoever shall teach us how to educate from our thought-world into the work of life, and from the work of life into our world of thoughts and ideals again, will satisfy one of the finest cravings of that common humanity. It is because I believe the choicest leaders of this new industrial-education movement are doing this very thing, that I rejoice in their successes and find it hard to criticize even when I think they are taking an unwise turn.

There can be no doubt of the possibility of doing good work in the way of agricultural instruction in schools of secondary grade. The success of the state agricultural school of Minnesota has made this clear. The accounts of personal visits to five other schools, by competent observers, presented by the Committee on Industrial Education in Schools for Rural Communities, while they may moderate some of our more extravagant expectations, show clearly enough that promising beginnings have been made in widely scattered states.

A practical education has been shown to be feasible in schools which train for the farm and for the work of the home upon the farm. It has been proposed that agricultural education be employed as a specific means of keeping young people from leaving the farm and going to the city. I do not doubt that it will have an influence in that direction, and we may earnestly hope that it may. But it is not good to have education turned too definitely to any other end than education. Let us give the young people of our rural communities the best education that we can, and an education which utilizes the inherent interest of their environment and gives them power over that environment. This is about all we can legitimately do by way of educating them to stay upon the farm, whatever their inborn aptitudes may be. But it is also one of the best things we could possibly do to keep on the farm those who are suited to the life of the farm and care for that life at its best.

Diversity is still desirable in our American education—diversity of form, with growing unanimity in standards. But this is to be a diversity within limits. Under our system of educational administration, free variation is to be cherished particularly as between the several states and unity is to be more particularly sought within the state. I speak of unity within the state rather than flat uniformity. Even here we must have a fair amount of free play for variation. But we are to strengthen and build up in each of the states its own educational establishment, with all manner of help from the experience of other states, but with freedom to adopt what it will from their experience and freedom to experiment in directions that nowhere else have been explored to the end.

So I look with some misgiving on the proposal to give national aid to secondary schools of agriculture of one predetermined kind for all the states. In this I refer, of course, to the Davis bill. In itself the school proposed, or rather the system of schools, presents a highly attractive and promising educational organization. But it may be doubted whether it is equally good for all of the states. For some states it might even prove to be so greatly at variance with the existing educational establishment as to make an undesirable division or even opposition in the state's educational forces.

One thing may, however, be fairly and unhesitatingly conceded to the advocates of this plan. A new type of school requires favorable conditions in which to establish clearly its difference from the prevailing type. There is a real danger that the new will be swallowed up in the old, soon losing its distinctive character and failing of its rightful influence. The new movement of industrial education has something more to offer than merely a new subject taught in the old way. It offers something of new method as well as new materials of instruction, and, what is still more important, a new attitude and direction of effort, for both teacher and pupils. While we are waiting for national aid, or wholly apart from the question of national aid, the free experiments which are making in the secondary schools of different states should seek and find the ways in which the new type of education can establish and demonstrate its essential character.

But if we go too far in our emphasis upon differences we shall lose our hold on unity. For many years we have had the teaching of trades in public schools. But it was confined to schools of a penal character, and failed to make any impress on our general education. It would be a misfortune and a disappointment if this new movement in industrial education should give us only educational curiosities, in the form of schools quite apart from our main educational systems. Neither do we wish to see the vocational idea in education carry on a fight to the finish with the idea of liberal culture, a fight which should leave vocational schools in full possession of the fields, with the few surviving schools of culture appearing in their turn as queer specimens in an archaeological museum. The finer purpose of the industrial-education movement, if I understand that movement correctly, is not to set up vocational training as over against our established training for citizenship. It is, instead, the purpose to bring all education into touch with life and with the actualities of ordinary experience. This is not separation, secession, revolution. It is variation within unity and for the sake of a richer unity. It is a well-ordered and wholesome evolution.

In such a purpose as this the most of us, I am sure, can heartily join. But it will take some years of close study and free experiment to find the best ways to that end and get them all in order for common use. Any general forward movement should be taken not only on the information brought in by scouting parties but with some fairly reliable chart of the field for our guidance. Or, dropping the metaphor, the whole country should not be bound to one form of agricultural education of secondary grade, till the situation has been adequately canvassed and the numerous elements which should have weight in such matters have been carefully evaluated.

WHAT IS AGRICULTURE—ELEMENTARY, SECONDARY AND COLLEGIATE?

A. C. TRUE, U. S. OFFICE OF EXPERIMENT STATIONS, WASHINGTON, D. C.

AGRICULTURE DEFINED

Agriculture may be defined briefly as the theory and practice of producing and utilizing plants and animals useful to man. It includes not only production in the narrow sense of that word, but also the theory and practice of soil management; of utilizing agricultural products as food for man and domestic animals, or as the raw materials for manufacture into butter, cheese, sugar, canned goods, preserves, and the like; of the construction of farm roads, drains, irrigating systems, water and sewage systems, buildings, implements, and machinery, and of such matters as employing labor, preparing articles for market, marketing, and keeping farm records and accounts. It includes not only what is embraced in farming, but also horticulture and forestry. It is a broad and complex subject, embracing both the art or practice of producing plants and animals and the theory or science upon which such production is based.

The art of agriculture dates back to the time when primitive man first began to exercise dominion over the beasts of the field to aid him in his migrations or to furnish him food and clothing, to the time when he first discovered that by saving some of the seeds of the plants he was fond of consuming and planting them in the ground he could reproduce those plants in abundance. It grew as he discovered that thru forethought and care and labor on his part he could make the animals and the plants minister more and more to his pleasure and well-being. Gradually he subdued more lands, improved the plants he was cultivating and selected others for his use, devised new implements to make his labor more productive or to enable him to shift more of his burden upon the animals that served him, and finally developed something of a system of agricultural practice—the art of agriculture.

But this ancestor of ours, the husbandman and shepherd of ancient history, knew nothing of the reasons for the improvement in his plants and animals, nothing of the underlying principles of his art. He belonged not among the wise men of his day; his not to ask the reason why. It remained for the Liebigs, the Boussingaults, and the Gilberts of a later day, men called scientists, to lay the foundations upon which the science of agriculture should be erected. These men and their associates and followers—chemists, botanists, physicists, physiologists, bacteriologists—conducted fundamental researches, some of which designedly and some incidentally were concerned with the materials and processes of agriculture. Thus these seekers after truth in nature and the investigators connected with modern institutions, known as departments of agriculture and agricultural experiment stations, have accumulated a great fund of knowledge concerning the physical and biological laws of nature, which is gradually being sorted and classified and organized into a science of agriculture. The process is not complete, the science of agriculture is not clearly defined and fixed—neither is botany nor chemistry or any other science. But there has been organized a sufficient body of teachable knowledge concerning the underlying principles of agriculture to warrant our calling it the science of agriculture. The process has gone far enough to enable us to distinguish between the art of agriculture, which is concerned with the practice of producing and utilizing cultivated plants and domestic animals, and the science of agriculture, which may be defined as that body of knowledge (gained and verified by exact observation and correct thinking, methodically formulated and arranged in a rational system) in which the facts relating to the production of plants and animals useful to man and the uses of these plants and animals are accurately set forth, and a rational explanation is given of the phenomena and laws involved in such production and uses.

We may draw a very reasonable analogy between the science of agriculture and the science of medicine. Both have been profoundly affected by recent researches in other sciences and are in process of reconstruction and development. Both use materials drawn from many sciences, and these materials are grouped in new and special ways with reference to their ultimate usefulness as a basis for an art or practice. This practice is clearly differentiated from the science and yet indissolubly united with it. In the case of both agriculture and medicine the science is now, as we believe, on a sound basis and rapidly developing along right lines, and the practice is every year being more profoundly and beneficially affected by the science explaining the principles upon which its processes are founded and revealing the facts and laws by means of which its operations may be further improved.

The fact that there is an art of agriculture, and that this art in its cruder forms involves comparatively simple operations in no way militates against the need and feasibility of our having and teaching a science of agriculture. We readily grant that many of the operations of agriculture may be performed by persons ignorant of the science, but it is already evident that a right knowledge of the science may be very helpful in the practice of the art. It is also becoming apparent that the teaching of chemistry, botany, and zoölogy, even on their economic sides, is not enough to satisfy the demands of agriculture. There must be teaching of the science of agriculture as such, from the college down.

THE FEASIBILITY OF TEACHING AGRICULTURE IN ELEMENTARY AND SECONDARY SCHOOLS

Having defined agriculture as an art and a science, it remains for us to consider what it is feasible and desirable to teach under the name of agriculture in schools of different grades.

The rapid development of the science of agriculture and the widening of its boundaries have led to apprehension that failure is likely to result from attempts to teach the subject in the schools of primary and secondary grades which are attended by the great body of our young people in agricultural communities, who from the necessities of their condition and environment are unable to attend colleges of agriculture. On the contrary, every step in the more definite definition of the science of agriculture and in the development of the pedagogics of the subject has resulted in the multiplication of textbooks, pamphlets, and other printed material designed for use in teaching agriculture in elementary and secondary schools. And the demand that agriculture shall be taught in such schools has more than kept pace with the preparation of suitable material.

As to the feasibility of using this material in the lower schools we may again resort to analogy between such a large term as agriculture and such comprehensive terms as mathematics and language. It would of course be absurd for anybody to hold that because mathematics is such a large subject as a whole we should not teach any of it in elementary schools, and yet this is the position some people seem to take with reference to agriculture.

The proper thing of course in such a subject as mathematics is to begin with a few simple topics, selected out of the vast mass of material, and then to increase the range and difficulty of the topics as we rise in grade of school. We teach simple arithmetic in the elementary school, alegbra and geometry in the high school, calculus in the college. We can follow somewhat the same plan with reference to agriculture.

On the other hand, while we teach some mathematics and its application in the elementary school, we do not attempt to make these practical applications cover a very wide range. It will be absurd to expect children in the elementary school to have practice in the complicated arithmetic required in banking, insurance, or surveying. They can, however, learn to keep simple accounts. In a similar way the practicums connected with agriculture in the elementary school will deal with the simple practices of agriculture and not with the subject as a whole in its more complicated aspects.

WHAT OF AGRICULTURE SHOULD BE TAUGHT IN SCHOOLS OF DIFFERENT GRADES

The Elementary School and Small Rural High School Where Sciences Are not Taught

In rural elementary schools with courses of study extending over eight years, we believe that elementary agriculture should be taught in the seventh and eighth years. As a preparation for this work during the first six years of the course the pupils should engage in nature-study work dealing largely with the common things of the farm and home, the roadside, and the school with a view of developing the powers of observation and stimulating a lively interest in the phenomena of nature and the operation of nature's laws.

With such preparation pupils of the seventh grade will welcome the more systematic teaching of carefully selected and properly graded topics directly relating to agriculture. The basis for this work may well be an elementary textbook of agriculture, the subject-matter of which may be mastered in two years. Considerable supplementary literature, such as some of the Farmers' Bulletins of the United States Department of Agriculture and some of the bulletins of the state agricultural experiment stations, may also be used. Such literature should be liberally supplied in the schoolroom, as should also other agricultural textbooks and manuals, encyclopaedias, and agricultural journals, not alone that the pupils may store their minds with information, but that they may become familiar with the sources of reliable information concerning the problems of the farmer's business, and learn how to secure and use this information.

The oral work of the classroom should also be supplemented in many ways. The literature of agriculture should never divorce the pupil from actual and sympathetic contact with the materials of agriculture. There should be simple laboratory exercises with soils and plants, some practice in identifying types of farm animals and in caring for these animals at home, and home-gardening or field-crop work involving some consideration of the selection and testing of seeds, methods and principles of culture, comparison of yields, and the utilization of products. How such exercises may be systematically worked out for primary schools is illustrated in *Bulletin 186* of the Office of Experiment Stations. The time to be devoted to agriculture will necessarily vary in different schools, but it is believed that on the average not less than one hour a week during the seventh and eighth years will be required to make the class work and the supplementary exercises effective.

The chief aim of the teacher of nature-study and agriculture in the elementary school should be to create in the child a love of nature and country life, and to open his mind to the opportunities for pleasing and profitable study thruout his life to be found in the things and operations connected with agriculture. For this purpose, clearness and simplicity are essential.

The Non-technical High School

In the non-technical secondary schools where agriculture is taught we believe not only that the instruction in agriculture should be of higher grade than that in the elementary schools but also that it should involve some knowledge on the part of the pupils of the principles of botany, chemistry and physics. Agriculture should now include some study of the morphology and physiology of cultivated plants, the influences of heredity and environment upon them, soils and other physical and biological agencies in their relations to crop production, breeds of animals, the principles of feeding and the compounding of rations, the care and handling of milk and its products, diseases and insect pests and how to combat them, farm machinery, farm records, and other like topics.

The laboratory exercises and field-work of the secondary school should be more complex than in the primary school and should deal more with the underlying principles of agriculture, more with the science of agriculture.

Greater attention should be paid to arranging field trips and excursions to neighboring farms, dairies, creameries, etc., and to giving the students problems to work out in the orchards, fields, and barns at home. Special attention should be given to the forms of agriculture predominant in the region of the school. And the teacher should ever keep in mind that the object of this secondary work is to aid directly in making intelligent and progressive farmers and horticulturists, not theorists and amateurs but practical and successful workers. As a rule one teacher will have to direct all of the agricultural work of such schools.

The character of the agricultural instruction suited to high schools is illustrated in the eleventh report of the Committee on Instruction in Agriculture of the Association of American Agricultural Colleges and Experiment Stations, which has been published as *Circular 77* of the Office of Experiment Stations.

The Technical Agricultural High School

In the technical agricultural high schools as they exist today the instruction in agriculture is more highly specialized than in non-technical high schools, and the technical schools have the further advantage of a good equipment in laboratories, fields, barns, and other conveniences, and usually a corps of agricultural teachers, each a specialist in some phase of the subject. In these institutions there is an opportunity to teach not only the principles of the science of agriculture but also much of the practice. The students have opportunity under expert guidance to acquire some skill in judging and feeding live stock, in operating the dairy and the creamery, in handling improved farm machinery, and in the other work of a modern, well-equipped farm. These schools should be held rigidly to the aim of producing intelligent and successful workers in some branch of practical agriculture, but their courses may at the same time lay a sound foundation for the work of the agricultural college.

The Agricultural College

The work of the agricultural college is still more advanced, more scientific. Advanced botany, chemistry, physics, zoölogy, entomology, and bacteriology are taught, and the science of agriculture is emphasized more than the art. Usually a previous knowledge of farming operations is assumed, and the time of the students is devoted to acquiring a thoro knowledge of the broad underlying principles of agriculture. They have opportunities to familiarize themselves with the research work of the United States Department of Agriculture and of the agricultural experiment stations connected with the colleges of agriculture, with the history of agriculture and the great agricultural problems of the day, with the business of agriculture in its relations to manufacturing, commerce, and other business operations, and with the social problems of rural communities.

The business of the agricultural college is to train the leaders in agricultural progress—the teachers, investigators, journalists, state and federal officers engaged in promoting agriculture, and the managers of large enterprises and special agricultural industries. The agricultural college faculties and courses should be organized on a comprehensive and thoro plan, and the students, during a part of their undergraduate course, and in all of their graduate courses, should have as ample opportunity for specialization and the thoro mastery of the subjects to which they expect to devote their lives as is given in other scientific and industrial subjects with which the college and the university deal.

SUMMARY

Summarizing briefly, we have attempted in the foregoing discussion to define agriculture as an art and a science, to show that there is a teachable body of knowledge concerning the principles of agriculture, and to point out the possibilities and limitations of the subject in schools of different grades.

We believe that it is desirable, and will soon be practicable, to teach agriculture in all schools attended by children residing in rural communities, but that much care should be exercised in selecting the materials for study in the different grades of schools.

We would confine the agricultural instruction in the elementary schools to the simpler facts and principles relating to the production and use of plants and animals useful to man, insist that the students of agriculture in secondary schools have some knowledge of science in its relations to the practice of agriculture, emphasize the practical side of agriculture in technical agricultural high schools, and bear heavily upon the training of agricultural college students in the primary physical and biological sciences, as well as in the science of agriculture, the relations of agriculture to the manufacturing and carrying business of the world, and the efficient and satisfactory social organization of rural communities.

DISCUSSION

C. F. CURTISS, dean of Division of Agriculture, Iowa State College.—The demand that agriculture be taught in the public schools is generally recognized. It is of recent origin. It is popular and permanent. Its success in the curriculum of the colleges is fully established. Greater progress has been made in teaching agriculture in the colleges and in the elementary schools than in the secondary schools. This is natural but illogical. A system built strongly at the top and bottom, but weak in the middle, is defective. With a symmetrical development, the secondary schools will afford the widest field and the opportunity for greatest usefulness in agricultural education. But a small percentage of the population of any country can ever attend college. The most significant movement of the twentieth century is the demand for higher education. This demand cannot be met by the colleges alone, however efficient and numerous they may become. The high schools and secondary schools are destined to occupy a larger place in our educational system. Their curriculum will be broadened to include agriculture and other technical work. The time has already come for a differentiation of courses. Comparatively a small percentage of the high-school graduates ever attend college, but there should be less overlapping and duplication of work for the high-school graduate who wishes to take up a college course. He should have different training in his last year, at least, from the student whose education stops at the high school. He should, under a proper system, have more credit on entering college than he now gets from his high-school course. The agriculture introduced in the secondary schools should meet the requirements for technical training of the student whose schooling stops there, and it should also articulate with the college course.

Agricultural instruction should begin with nature-study. Nature-study is not properly study in the initial stages. It is observation; it is seeing; it leads to thinking, to reasoning, to comprehension of principles. It then becomes study and may be classed as elementary instruction in agriculture.

Instruction in agriculture, whether elementary, secondary, or collegiate, must be real and not perfunctory. It must deal with living objects and things, and not mere theory. It must reach the spirit of the farm and modern country life. It is more difficult to teach agriculture successfully in the elementary and secondary schools than in the colleges. Its introduction there must not await the coming of the textbooks—even good textbooks. At the outset textbooks are likely to hinder rather than help the progress of agriculture in the elementary schools. The land-grant colleges made a virtual failure for the first twenty-five years of their existence in their efforts to teach agriculture, largely because they adhered too closely to the textbook method.

The great problem is teachers. The colleges have no more difficult or important task before them today than the training of teachers for instruction in agriculture in the elementary and secondary schools. The colleges must train teachers for the secondary schools in agriculture, and they in turn may be of great assistance in training teachers for other secondary schools and for the elementary schools.

I have no fear of the separate agricultural high schools. No valid argument can be urged against them that could not be, and was not, used against establishing the land-grant colleges. They will not create peasants in America. On the contrary they will establish higher standards of American farm life, and higher ideals of citizenship. I think it is unwarranted and unjust to charge that similar schools have peasantized Europe. Peasantry exists there in spite of such schools and not as a result of them. The peasantry of Europe does not reach the agricultural high school; if it did it would cease to be peasantry. The secondary technical schools of Germany train the landholders and proprietors of agricultural estates, who constitute the real aristocracy of Europe, as they are destined to in America.

Notwithstanding this view, however, I believe that the village and city high schools will eventually constitute the chief agency for furnishing secondary instruction in agriculture. The separate agricultural high schools can never be numerous enough to meet in any adequate degree the demands for this kind of instruction. They will not displace agriculture in the village and city high schools. They will serve to strengthen and sustain it. Such schools must not be mere trade schools. They should train men and women for life and citizenship, as well as for the great industries. The village and city schools should serve a similar purpose. They will not succeed in teaching agriculture by endeavoring to instill mere principles and theories, or even the science of agriculture. They must plant their feet firmly on the soil and get into actual contact with things agricultural, and point out the real relation between the science and the art of agriculture. This has been conclusively demonstrated in the land-grant colleges. It will be even more essential in giving successful instruction in elementary agriculture. This can be done by access to fields and gardens; to laboratories and live stock. The initial problem is to secure the teacher with the right spirit and training, and with a genius and enthusiasm for the presentation of this subject. Suitable equipment and facilities may be expensive and difficult to obtain, but they are essential, and they will follow quickly when once the right kind of teachers is secured. A strong teacher in this field will find a way to get equipment for teaching the work successfully. An indifferent teacher will fail with any equipment.

The danger at the outset lies in undertaking too much and making it too intricate, particularly in the elementary schools. Doctor True has very properly emphasized the importance of limiting the elementary work to simple and clear demonstrations and principles. The simple lessons clearly presented will lead up logically to the more technical work, and our system of agricultural education will eventually be built from the bottom up instead of from the top down.

SCHOOL GARDENING AS CONDUCTED IN CLEVELAND SCHOOLS

CHARLES ORR, DIRECTOR OF SCHOOLS, CLEVELAND, OHIO

That elementary agriculture and school gardens should have had so small a place in our public schools has been a source of some wonder to many students of our educational system, both at home and abroad. We do not of course, as a people, underrate the importance of agriculture in our economic system, as is evidenced in the enormous annual expenditures of our national and state governments to disseminate information as to agricultural matters direct to the people. Indeed, no country in the world compares with our own in the number of printed pages issued annually at government expense with reference to these subjects. Many of the states support agricultural colleges and schools, and a bill now pending in Congress provides for an annual appropriation in aid of agricultural education in all secondary schools. There are signs, too, that the indifference of local school boards to the fact that much can be done with agriculture even in our city schools is passing away.

A survey of the present development of school gardens in Europe, in Canada, and in the United States may be found in a bulletin by James Ralph Jewell, issued by the Department of Agriculture; and information is to be found in other bulletins and circulars of the department and similar sources easily available.

A few of you may not know that the countries of Europe have long recognized the value of the school garden as a factor in the education of the child. In France instruction in agriculture in primary and elementary rural schools is obligatory. Four thousand of these schools have gardens attached to them, and in 160 primary schools more than 15,000 children receive instruction in agriculture. This instruction, which is for boys and girls between thirteen and sixteen years of age, includes practical ideas about vegetation; the duration of growth and reproduction (by seeds, buds, grafts); different kinds of land, fertilizers and their use, and rotation; the use of agricultural implements and machines; principal operations in agriculture, such as breaking up land, planting, transplanting, drainage, and irrigation; principal crops of France and of the locality; diseases of plants, parasites; legumes, fruits, flowers; use of sash; training and pruning fruit trees; care of domestic animals; and bee culture.

The aims of this instruction as defined by the minister of agriculture are to give the greatest number of country children that degree of elementary knowledge which is essential to enable them to read a modern book on agriculture or attend an agricultural meeting with profit, and to inspire them with a love of country life, so that they may prefer it to that of towns and factories. In order to supply teachers with an adequate knowledge of the principles of agriculture, a course of agriculture is taught in all normal schools for men.

In Italy the establishment of school gardens in connection with elementary schools, both rural and city, is also compulsory. Austria-Hungary now has some twenty thousand school gardens under compulsory provision. Germany has many thousand, tho they are not as yet an organic part of the school system. The school laws of Belgium, Sweden, and Switzerland all provide for compulsory instruction in agriculture and for school gardens, and even Russia, which we think of as lacking in progress, has established these gardens to the number of over eight thousand.

But while the schools of the United States have lagged far behind those of European countries in this agricultural education, there is an awakening everywhere to the opportunity. It happens that in Cleveland conditions have been favorable for a start in the development of a system of school gardens, which, as is hoped by its promoters, may at least help to point the way.

As in many things now generally accepted as a legitimate part of school work, school gardens in Cleveland received their impulse from the outside. The Home Gardening Association, founded in 1900 to encourage gardening in the immediate neighborhood of Goodrich House, rapidly extended its field of work and influence to include the whole city. From the first it had the hearty coöperation of the school authorities, and thru the agency of the schools about 250,000 packets of flower and vegetable seeds, at a penny a packet, and many thousand bulbs are annually distributed. In 1904 the association employed a director and paid the cost of four gardens. The success of these gardens and the interest they aroused induced the Board of Education to create the position of curator of school gardens, believed to be the first position of the kind in a city system in the United States. The director of schools appointed to this position Miss Louise Klein Miller. The duties of the position include also the beautifying of school grounds, care of a botanical and propagating garden and lectures in the public schools on home gardening. The success of all branches of this work is notable and is due of course largely to her ability, interest, and enthusiasm.

It is granted that the city school garden must fulfill a mission somewhat different from that of the rural or town school. It may, for instance, be the only opportunity the city child will have to observe the processes of nature, which are quite familiar to the country child. Instances of awakened interest in the wonderful things of nature thru contact with our gardens are matters of daily experience. From a love and care for the things of nature the child rises to a deeper love and respect for his comrades, and thru that again to the love of the Creator of all things.

Cleveland, like other large cities of the Middle West, has attracted many families whose ancestors were well rooted in the soil and who thru our changed industrial conditions have been forced into an unnatural environment. The sons of these fathers feel perhaps an unconscious but almost irresistible desire to get back to the soil. The school garden opens up an opportunity without which the boy might be doomed to spend his days in employment in the shop or store, in work for which he is by nature unsuited. This possibility is one of the most hopeful of many which the city school-garden has revealed.

School gardens as now organized in Cleveland include:

First, gardens for the normal child, as at Warren, Doan and Rosedale.

Second, gardens for defective or backward children, as at Outhwaite, Fowler, Oakland, and Orchard.

Third, a garden for the delinquents at the Boys' and Detention School.

Fourth, kitchen garden in connection with the cooking-school for the elementary grades, conducted at Oakland School, one of several centers for elementary manual-training work in the city.

These four types are intended to illustrate the possibilities of school-garden work in a city-school system. It is hoped to develop them indefinitely, depending of course upon the funds available. It was found this year to be desirable to reduce the number of gardens for normal children from eight to three, in order to increase the number for defectives, and to organize the other work as outlined.

It should be understood that our school-garden work is not as yet a part of the school curriculum, being entirely voluntary upon the part of the child, and done outside of school hours. Normal children of the fifth, sixth, seventh, and eighth grades, both boys and girls, make application for gardens upon a blank, reading as follows;

"I desire a garden in the ——— school garden and agree to be punctual and regular in attendance and efficient in my work."

The assignment having been made, a superintendent and head gardener are selected.

The head gardener is responsible to the superintendent, who in turn reports to the curator. The beds vary in size—depending on the space available and the number of gardens—from 5×10 feet to 16×20 feet. The laying-out of the gardens and walks is a matter of careful consideration. A plan is drawn up and measurements taken, the whole process being a practical application of arithmetic. The general plan of planting is discussed, and an effort is made to impress the child as to his responsibility, not only for the care of his own plot, but to the community, as represented by the garden as a whole, and also to the head gardener and superintendent. An incident will illustrate the possibilities in the teaching of citizenship and obedience to authority. In one of the gardens the head gardener, a younger and rather small boy, directed an older boy to perform some task. The older boy refused, saying, "I won't be bossed by a kid." The matter was referred to the curator, who called all the gardeners together and discussed with them the relation of employer and employed, superintendent and workman, the state and the citizen. The rebellious gardener returned to his work feeling that he was not humiliated by being bossed by a classmate, but rather that he was dignified by executing the commands of a superior.

The soil having been prepared and the seeds duly planted, there is a waiting period until the plants appear, which is occupied in preparing the walks, or work among the perennials in the border, or in watering the beds. The finding of an earth-worm arouses a discussion as to use of the worm in Nature—what becomes of them in winter, etc. The properties of soils and the effect of water and sunshine, the measure of time as shown by the garden sun-dial, and many things the city child is curious to know, are talked over from day to day. The child's whole heart and soul are soon in his work, and as the garden grows, and the weeds come on, no task is too much for him, for so does "the labour we delight in physic pain."

A sense of ownership is encouraged by permitting the gardener to take home the product of his labor. A careful record is kept by each child of the date of planting and gathering and the number of each vegetable raised. Order, punctuality, and industry are insisted upon as cardinal principles to be observed by all successful gardeners.

The method pursued in gardens for defectives is necessarily somewhat different. These were conducted at five schools in the present year with ninety-seven individual gardens. Practically all the defective children at these schools take part in the work. Those unable to plant seeds or to measure walks and beds took delight in keeping the paths free from weeds and rubbish. The mentally deficient derived much profit from the work. The physically weak were benefited by continuous exercise in the open air and sunshine. As a result of our experience it is confidently believed that the school garden for the defective child has a distinct mission, not only as being helpful in restoring it to a more normal condition of mind and body, but as opening up a way to an occupation in life.

The garden for delinquents begun this year is attached to the truant and detention school. Only a small beginning has been made as yet, but the results obtained encourage us to think that much may be done in another year. The method is similar to that in the gardens for defectives. We find the boys at this school eager to take up the work and some who are confirmed truants have come to love the garden. We regret that conditions will not permit these boys to remain at school during the summer vacation.

The kitchen garden at Oakland is the only one of its type yet opened in Cleveland. It is of special interest in view of the widespread development of cooking and domestic training in elementary and high schools. The garden is located immediately outside the door of the cooking-school and is planted with such vegetables as are commonly used on the table, and also some of the grain foods, and flax, hemp and other fibrous plants from which textiles are made.

The planting this year was done by a regular gardener, but the children took great interest in the work and it is hoped next year to perfect a plan by which they may sow, plant, and cultivate every vegetable they are likely to require for their work or lesson. It will be seen that this kind of gardening enables girls to understand the plants which form our chief daily food.

As has been suggested by one who has given much study to this form of garden, it awakens in these girls a newer and deeper interest in things that have heretofore had only a market value; and those who acquire such a practical knowledge of gardening during school life will readily see in later life, if they possess only ever so small a garden, a means whereby a little saving to the family purse may be effected and the household continually supplied with fresh home-grown vegetables.

It would not be possible in the space allotted to give more than an outline of the work attempted. I hope by means of the discussion, and some slides we have prepared, to illustrate more fully what we are doing. During the present season we conducted three hundred twenty-four gardens at nine schools, embracing the various types mentioned. We feel that we may properly claim that the whole represents a system of school gardens. As has been stated they are not as yet a part of the school curriculum, but their promoters are hopeful that they may be in the near future.

DEVELOPMENT OF SCHOOL GARDENS AT THE NATIONAL CAPITAL

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WASHINGTON, D. C.

Schoolground decoration, home gardens, and community gardens of individual plots for the teaching of agriculture and horticulture are the lines along which gardening has developed in the public schools of the District of Columbia.

As teachers we had no civic conscience until 1903. As a part of the general educational awakening we realized the value of attractive surroundings and that our immediate school surroundings were not a credit to the capital. No grass, trees, shrubs, nor flowers were growing anywhere except at one suburban school; so little had we noticed the matter that new buildings were occupied often months, occasionally a couple of years, before the grounds were graded.

Congress states definitely how school funds shall be spent and as there was no appropriation for gardens, the authorities were powerless to help. Teachers and children undertook the work at first strictly from the desire to make a more beautiful city. The children hauled the soil from every available space; tools were brought from home; shrubbery was donated; one school protected its newly made lawn by a broomstick fence. Time now is beginning to show results. They have the earmarks of the amateur, but their success was sufficient to have Congress make a definite appropriation for gardens last year and to increase that appropriation this year.

Of what value is it? The influence on the homes is worth the effort we have made. Children, thru their desire to imitate, are sure to do at home what they do at school. So the Board of Education encouraged this natural instinct by making it easy for the children to procure seed. A local seedsman was allowed to take orders from the children for seeds at a cent a package. This privilege has been granted for four years, the sale increasing markedly this year. It is about two and a half times larger than the first year. Some of the home gardens have brought in a financial profit, but their best results are the closer and more harmonious relations they bring about between home and school. Many of the teachers have visited the home gardens. At most of the schools the children bring their products to the teachers on an assigned day in the fall. Parents come to see the results, and naturally, relations are pleasanter than if complaints caused the visiting.

We use the garden also as a means to reduce flower thefts and vandalism. From it we preach the doctrine of ownership. Each child is permitted to spend a cent for a bulb to be planted in the school garden in the fall. The teachers impress the children with the facts that they own the bulbs and that they are making the world more beautiful for themselves, the neighborhood, and passers-by. They must as owners protect their property, remembering at the same time that their neighbors are also owners and lovers of their own gardens. Some remarkable changes have been made from this teaching, particularly among the foreign children. It is a teaching, however, that must be kept constantly before children.

Hon. James Wilson, secretary of agriculture, urges the necessity of courses in agriculture and horticulture in normal schools that we may have teachers not ignorant of the subject. Acting upon the advice of Dr. B. T. Galloway, chief of the Bureau of Plant Industry, Secretary Wilson offered to each of the two normal schools of the city a greenhouse where work vastly different from the old form of botany might be carried on. Later he offered land for a garden where normal students might conduct practice classes. This land is a part of the park system and was a beautiful stretch of lawn. The growth of children was of more importance to the secretary than the growth of grass. This garden has attracted widespread attention so I shall not describe it here. The boys who have individual plots in it are mostly from the sixth grade. It is a form of industrial training for them. They report for the lessons in classes varying in size from fifteen to fifty, once a week during the spring and fall. During the winter a series of lessons is given in the schoolrooms on soils, the needs of plant life, germination, etc. These lessons are wholly experimental in nature, the children setting up all of the apparatus and performing the experiments. During vacation the work is volunteer, and girls as well as boys enter the classes. Seven other gardens of this nature have been established thru the city. One of the most interesting ones is in an ordinary city back yard. The ash pile was removed from the yard, the ground fertilized. A class of eighteen sixth-grade boys were given small plots. They raised $35 worth of vegetables there last season. In all eight hundred children are being taught to be producers during the vacation.

One of the best results of the garden work is the practical tendency it is giving nature-study work. At first the planting of the garden seemed to be the end. Now it is becoming a means to an end. Nature-study lessons where possible are given in the garden. Arithmetic is given a practical application. Material for drawing, language, composition are furnished. Teachers need to be taught how to use the garden.

A legitimate part of school work is to teach how to enjoy the leisure moments of life. The love for flowers, trees, birds, the outdoors, fostered in childhood, will make new joys in vacation in manhood. It falls to the school to give such teaching. The present generation of parents, and, I regret to say, much of the present generation of teachers, have yet to learn to derive pleasure and appreciation from the simple things of life. To illustrate: The trees of the capital are the pride of Washingtonians. Monuments and public buildings are not to be compared with them. Riding on a street car behind two visitors, I overheard this conversation; "I would like Washington if there were not so many trees." "Yes," said the other, "and too, if they did not waste so much space in parks. I like trees and grass, but I like them in the country where they belong." It is not difficult to picture their home surroundings nor their early training. Again, let me repeat, it is the province of the school to teach appreciation of the beautiful in art and in nature that one may enjoy his idle moments.

The gardens at the capital have grown so in the past four years that they are demanding a recognition in the form of a supervisor and corps of teachers on an equality with other lines of special work. It may be some time, however, before Congress makes such provision. At present the work of the city is directed by the botany department of the normal school thru teachers' meetings and printed matter.

DEPARTMENT OF NATIONAL ORGANIZATIONS OF WOMEN

SECRETARY'S MINUTES

OFFICERS

President—MISS LAURA DRAKE GILL, president, Association of Collegiate Alumnae, Washington, D. C.
Vice-President—MRS. FREDERIC SCHOFF, president, Juvenile Court of Probation Asso., Philadelphia.
Secretary—MRS. PHILIP N. MOORE, trustee of Vassar College, St. Louis, Mo.

FIRST SESSION.—THURSDAY MORNING, JULY 2, 1908

President Laura Drake Gill called the Department to order in the Pilgrim Church at 9:30 o'clock.

Upon motion a Nominating Committee was appointed as follows:

Miss Katharine Dopp, of the University of Chicago.
Miss Edna Day, University of Missouri.
Mrs. Orville T. Bright, of Chicago.

It was moved by Mrs. Herbert Mengel of Louisville, Ky., seconded, and carried, that the president of each of the five organizations appoint one member to act with the three executive officers in planning the work for the coming year.

It was suggested that the "Aim and Principles" be read as presented by Miss Mary Abbott, chairman of the Educational Committee of the General Federation of Women's Clubs, and then given to the organizations in membership.

Those were read by the Secretary, as follows:

AIM

WHEREAS, education in the United States is not a national, but a state affair and there is so much diversity in the educational methods of various communities that the education a child receives depends largely upon the place where he lives, it shall be our aim to bring about, as far as possible, such an equalization of educational advantages that all children in every part of the United States may receive an equally good education.

GENERAL PRINCIPLES

1. All children of the United States should be educated; therefore, in every state, we will work for a compulsory law, backed by a good child-labor law.

2. Suitable school buildings should be provided; therefore we will endeavor to obtain, in every community, a well-built, well-equipped, well-cared-for building in which to carry on the school work.

3. Teachers should be thoroly trained and adequately paid for their work; therefore, in every state we will seek to secure normal schools of definite standard; minimum professional requirements, without which no one may be permitted to teach; and a minimum salary for less than which no one may be asked to teach.

4. Schools should be under expert supervision in order to accomplish their best work; therefore, we will urge that, in every state, provision be made for placing all schools under the care of trained superintendents.

5. School work to be satisfactory should produce three results in the pupils—knowledge, efficiency, character; therefore, we will make the effort to introduce into all schools training for the hand as well as for the head, and definite instruction in ethics and civics.

The president announced that only those in active memership may vote on the questions coming before the Department.

President Gill opened the regular program with remarks concerning the appropriate work of such a department as this, stating there would naturally be some divergence of opinion upon methods.

The conservative view of the members present at the conference of Wednesday retained the name under which the Department was organized.

Hon. Elmer Ellsworth Brown. United States commissioner of education, read a paper upon "Suggestions for Effective Coöperation."

Mrs. Florence Kelley of New York presented "Laws Regarding Child Welfare," which was followed by discussion by Mrs. Herbert Mengel of Louisville, Ky., and Miss Jane Addams, of Chicago.

At this point it was stated that Miss Katharine Dopp who had been appointed chairman of the Committee on Nominations was not present. Upon motion, Mrs. O. T. Bright was made chairman of the committee, and Miss Sadie American of New York City was added to the committee.

The third topic, "Women's Work in the Socialization of the Schools," was presented by Mrs. O. Shepard Barnum of Cumnock School, Los Angeles, Cal.

Mrs. Edwin C. Grice of Philadelphia discussed the subject from the side of the city schools.

An interesting discussion was opened by Mrs. Hefferan of Chicago upon the proposition that the curriculum of the high school should include manual, trade, and professional training.

Mrs. Frances W. Leiter, national superintendent of physical education, department of the W. C. T. U., of Mansfield, Ohio, spoke of the deficiency of the schools in educating the mind but not the body.

The active members were then asked to adjourn for the election of officers. At this meeting the Nominating Committee reported and the following were chosen as officers of the Department for the ensuing year:

For *President*, Miss Laura Drake Gill, Washington, D. C.
For *Vice-President*, Mrs. Sarah S. Platt Decker, Denver, Colo.
For *Secretary*, Mrs. Herbert W. Mengel, 2524 Park Place, Louisville, Ky.

The Department then adjourned.

SECOND SESSION.—THURSDAY AFTERNOON, JULY 2

The Department met at 2:30 o'clock with the Department of Child-Study in Euclid Avenue Baptist Church, at which meeting the Department was represented in an address by Robert W. Bruere, secretary of the N. Y. Committee on the Physical Welfare of School Children, in an address on the "Physiological Age and Child Labor."

MRS. PHILIP N. MOORE, *Secretary*

PAPERS AND DISCUSSIONS

THE WORK OF WOMEN'S ORGANIZATIONS IN EDUCATION: SUGGESTIONS FOR EFFECTIVE CO-OPERATION

ELMER ELLSWORTH BROWN, U. S. COMMISSIONER OF EDUCATION

For those who wish to see the National Education Association represent our educational interests in the broadest way, a peculiar significance attaches to the launching of this new department. An educational work of large significance and varied character, already in full progress, is here brought into connection with the comprehensive undertakings of this Association. While the responsibility for the establishment of the new department is widely shared, I should like at this time to recall in particular the part taken by Miss Mary M. Abbott, of Watertown, Connecticut, who shortly before her death had been laboring with great faith and devotion to bring about the arrangement which has here been consummated. I saw her but once, when she was devoting her best energies to this undertaking, and I had never known her aside from this enterprise; but I was much impressed with the really religious earnestness which she brought to her task. That spirit, I am sure, is shared by many others, and it gives promise that this department is to be one of the most useful branches of our general organization.

In the beginnings of modern schooling, a great deal depended upon the labors of unpaid organizers and overseers, mostly women, whose benevolent spirit found in the support and improvement of schools its best way of discharging the responsibility of the well-to-do toward the poor of their neighborhood. Those who have read that interesting work, *The Gurneys of Earlham*, by Augustus J. C. Hare, will recall the conscientious devotion to the education of the poor displayed by different members of the Gurney family, and particularly by its most conspicuous member, Mrs. Elizabeth Fry. There is much of the same sort to be found in the personal histories of eighteenth- and early nineteenth-century England, and the same spirit reappears in the early education societies of our American cities, in New York, in Boston, and in Philadelphia.

In both England and America the rise of well-ordered systems of public education threw endeavors of this kind into an eclipse. In place of schools supported, with the greatest difficulty, by private subscription, there appeared schools established by law and maintained by taxation. Teaching became both a professional occupation and a branch of the civil service. The responsibility for everything educational, at least of everything in the nature of public and organized education, was shifted to a body of professional servants of the commonwealth. The educational societies went out of existence, as did the American Anti-slavery Society, when the thirteenth amendment to our Constitution was adopted. The contributions and the benevolent activities of those who had carried the burden of schools were transferred to other charities. Education had simply ceased to be an eleemosynary and missionary enterprise, and had become a part of the ordinary administration of state and local governments.

Now, it is plain to see that, while education gained a great deal more than it lost by the change, the loss was real and serious. Fortunately, the professional teachers who took up the educational burden were themselves human as well as professional. Some of the finest devotion to the welfare of little children and to the wider purpose of the public weal, appears today in their activities. It was necessary to their best service that as they became more professional they should become more than professional, and many of them have come up gloriously to this higher plane. But it takes large natures to carry out so large a program, and it is not surprising that it has been done with varying degrees of success. The best teachers of all see most clearly this need, that new ways shall be found of bringing to the support of the modern public school some of those finer forces of our community life that once made the school and kept it alive.

Matters which lie wholly in the field of science—the method of constructing a bridge, of testing our milk or water supply, of combating an epidemic, of determining a question of legal right—these things are professional; and extra-professional interference in such affairs would do more harm than good. It is when we come into the field of morals that every man is responsible for a judgment of his own, and cannot shift it to the shoulders of another. And education, is essentially a question of morals. It is a question in which the professional point of view cannot pre-empt the whole field, and in which the non-professional citizen is morally bound to have opinions of his own.

Every public question; to be sure, has a moral side. The building of bridges, the conduct of dairies, the practice of the physician and the attorney: these are questions to which the common citizen cannot be indifferent. In education, too, there is a large field of professional knowledge, in which interference by the general public, or even by a board of education representing the public, could only do more harm than good. Within its limits, the professional judgment of the trained and experienced teacher is to be more scrupulously respected today than ever before. Not a book should be placed in the school library nor a picture on the schoolroom wall; no society, no matter how good its object, should be formed within the school under pressure from without; no special method nor device of teaching or of government should be imposed upon the school unless it have the approval of the teaching force within the school.

We have then a large range in which the professional teacher should clearly have the right of way, and an equally clear outlying territory, of great importance, in which we are dealing, not with professional responsibility, but with moral and community responsibility. And these two are fringed in together in an intermediate shadow land where some of the most vital questions of today are found.

This new department deals with that outlying field and with that indeterminate shadow land. Its relation to the schools is non-professional and moral. It is to further a return to the side of popular education of those benevolent and missionary endeavors which were once the main support of popular education. But we are to remember that in the intervening years the spirit of the benevolent missionary has changed. The spirit which did things for others for their good has been transformed into the spirit which does things with others for the common good. In this old spirit, renewed and remade, it is to be hoped that the department which you have inaugurated may become a rallying-point for those good influences in our communities which seek to find ways of working for and with the common schools. It is right that women should lead in this cause. They have shown capacity for such leadership. But it is to be hoped that men and women alike who desire that the non-professional responsibility of our communities for public education shall be adequately discharged--that all of these who have a mind to make education of more worth in their communities than it has been at the best hitherto—shall know better what to do and shall do it with better courage for the enlightenment which this department can give.

You will not expect my suggestions to take the form of a detailed program of topics for your consideration. Much of your work has already been blocked out by the societies that are here represented. Much of it must arise to meet the special need and occasion. The general platform on which you had met by common agreement before this department was organized embodies a number of the most important proposals for educational improvement on which the friends of education generally are agreed. In these matters, your work is that of bringing into effective prominence a number of improvements in which at least a passive unanimity has already been secured.

I should like, however, to indicate a general line of advance in the educational affairs of our larger centers of population, a plan which is extremely simple and yet must be regarded for the present as somewhat visionary. I should like to see all of the teachers organized for the consideration, from time to time, of definite proposals for the improvement of the schools; and all of the parents of school children organized, with other interested citizens, for a similar purpose. Without hampering our educational authorities in any of their ordinary work, and without relieving them of their ultimate responsibility for all of the work of the schools, I should like to see an informal and habitual referendum agreed upon, under which all proposals for far-reaching changes in the plan of education should be considered at length by these two independent bodies. All manner of conference and coöperation between the two should take place, and certain committees of conference and more general organizations should include teachers and parents on equal terms. Endless delays should, of course, be avoided; but by some such arrangement as this we might be reasonably sure that no sweeping change should be made till it should be fairly well understood by those who, next to the pupils themselves, are most concerned with the experiment.

But such an arrangement should not only prevent sudden and ill-considered change. It should prevent long-continued and equally ill-considered lack of change. We need to keep the spirit of invention alive in our school systems, for new times call for new measures. In both of the bodies to which I have referred the spirit of initiative should be fostered. In education as in other fields, the great majority of new inventions fail and ought to fail. But the hundredth one or the thousandth, that is a thing of great price. Let the body of non-professional friends of education be one in which a premium is placed upon suggestions for improvement and reform. Let fair consideration be given to suggestions of this kind. If they are widely approved, let them be passed on to the body of practical teachers for a second approval, or for modification or rejection. Or let the procedure be turned about, as the occasion may demand. But let us thru this means have, from year to year, proposals sent up to the education authorities which represent not merely the half-baked enthusiasm of some bright leader who has won a sudden following, but the serious conviction of those who have looked into the matter with care and conscience, some of them from the side of what the community wants, and some from the side of what the schools can do.

My own suggestion, as you see, is none too thoroly baked, and in this form it has not yet run the gauntlet of either a body of teachers or a body of friendly neighbors of the school. I hope it may have criticism, however, from both of these sides. And I venture to put it forward here in the hope that it may be one of the many proposals for the good of our education which you shall discuss to some good purpose in this first meeting of your department.

LAWS FOR THE CHILDREN'S WELFARE. AN IDEAL ATTAINABLE IN 1920: CHILD LABOR; COMPULSORY EDUCATION REGISTRATION OF BIRTHS; JUVENILE COURTS

MRS. FLORENCE KELLEY, GENERAL SECRETARY, NATIONAL CONSUMERS' LEAGUE, NEW YORK CITY

By an attainable ideal I mean an end desirable in itself which may by concerted effort be attained within a dozen years in every part of our nation.

It is the thesis of this paper that we may reasonably strive to obtain by 1920 in every state the complete, uniform registration of births; the free, compulsory education of boys and girls, to the sixteenth birthday; and banishment of employment at indoor gainful occupations to the same age, sixteen years. When these things exist much work now done by the juvenile courts will be superfluous and such courts will then be able to devote themselves to the noblest of their tasks, that of protecting children against injury by adults.

For the purpose of this paper, therefore, the word childhood is taken to mean the period before the sixteenth birthday. A child is a boy or girl not yet sixteen years old.

For several years there have been visible converging tendencies toward prolonging childhood to the sixteenth birthday.

COMPULSORY EDUCATION

When it is proposed to keep all the children in school to the sixteenth birthday, the obstacle which looms largest is poverty. Some widowed mother or disabled father, an orphan boy or girl rises before the mind's eye and the question obtrudes at once, "Are they to starve or are they to be pauperized?"

Now, this paper deals with the period of a dozen years, until 1920, and during every year of that interval the proportion of widows and orphans, and of disabled fathers, will diminish. For alcoholism, tuberculosis, preventable accidents in industry, and finally, and far more important than we have hitherto realized, venereal disease, are four exceedingly important causes of orphanage and of disability of parents. Each of these evils is the especial object of a national society devoted to the annihilation of one terrible scourge. We may, therefore, confidently look forward to a time when children will have fathers able to support them far more generally than is the case today. Then the widow and orphan will not so painfully haunt the minds of those who strive to free childhood from toil and to keep our children schoolboys and schoolgirls.

Meanwhile, several states boldly and wisely confront poverty and make it the legal duty of the community to provide for school children in cases of ascertained need. Among these are the new state of Oklahoma and the older states of Nebraska and Ohio.

It is well to borrow from the experience of those states which are putting in practice transition measures. Thus New York now tests the children of fourteen years as to their fitness to leave school, requiring them to continue in attendance until they have working-papers, which can be obtained only by the coöperative approval of responsible officers of two departments especially well fitted to pass upon the children's development. Neither the Department of Education alone, nor the Department of Health alone, is intrusted with the important task of deciding when children already fourteen years old may leave school. Both departments must co-operate and they must agree.

The initiative rests with the principal and the class teacher of the school. Upon the child's demand they must make themselves responsible by a signed statement that Sally is, according to the school record, fourteen years of age, and has finished the first half of the fifth year[1] of the curriculum, and can read and write simple sentences in the English language. With this school record Sally goes forth from school to the examiner's office at the Department of Health. There she is weighed, measured, and tested as to reading and writing in English by means of simple sentences dictated. If her proof of age and all these preliminary tests are satisfactory, a woman physician looks her over and signs and files as a public document the statement that, in her opinion, Sally is of the normal development of a child of her age and in good health. Then, and then only, is a certificate issued authorizing Sally to begin to work.

While it may be difficult to learn the exact age of Sally, and she might, therefore, be robbed of several years of school life (if left to the veracity of her parents, or to their reverence for the sanctity of an oath), the experience accumulated in the city of New York shows that it is perfectly easy to ascertain by personal examination whether Sally can read and write English, how many pounds she weighs, how many inches she measures, and whether she is sound in wind and limb. The grade that she has reached in school, too, can be ascertained without strain upon the truthfulness of anyone concerned.

There is relatively little difficulty in getting laws for children enacted. The trouble arises when they come to be enforced. For this reason, it is of the highest importance to make the laws as nearly as possible automatic, and to hold adults responsible for the obedience of their charges.

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[1] The work of Grade 5 A.

Whenever the state factory inspectors find in New York a child at work who has never had working-papers, they thereby automatically convict of violation of the compulsory-education law the child, its parent, and employer, and also the principal of the school last attended by the child thus permitted to escape illegally from school.

There is a perennial effort to substitute some single physical or mental test for the minimum age of school attendance and for beginning to work, but this should never be done. Today fourteen years constitute the shortest period of freedom from work which can rationally be assigned. What the children need in order to develop into sturdy, intelligent citizens is long, carefully guarded childhood, and a continuing process of education adapted to our national life with its industrial strain, and its ever-increasing demand upon the health and intelligence of the citizens. All the objective tests, physical and mental, are valuable in proportion as they reinforce the age minimum and assure the children freedom from toil until it is reached.

With the lengthening school year, and the increasing period of compulsory attendance, comes naturally vocational training for the children fourteen to sixteen years old. Thus New York and Massachusetts have recently established state commissions for promoting trade and industrial schools, and are extending the teaching of agriculture, too, downward from the agricultural colleges to the secondary schools.

We who advocate long school life, with freedom from toil, perceive most keenly that school gardens, domestic science, manual, industrial, trade and art training are the best agents for keeping children in school, far better than truant and probation officers, health and factory inspectors, altho all these four sorts of enforcing authorities will doubtless continue to be necessary for an indefinite time.

With compulsory education—as a vital part of it—must be incorporated the requirement that a reasonable part of the curriculum be completed. It little profits a child to sit, year after year, in a schoolroom, learning nothing, as befalls many a one today in inappropriate classes, following ill-adapted studies, growing stupider, not abler, with the passing years.

CHILD LABOR

The best child-labor law is a compulsory-education law keeping the child in school forty weeks in the year to the sixteenth birthday. But even this leaves certain possibilities of particularly injurious labor, as when school children work in cotton mills thruout the summer vacation from the age of twelve years in New Hampshire; or at night in glass factories at twelve and fourteen years, as in New Jersey, Maryland, Pennsylvania, West Virginia, and Indiana; or in the messenger service; or driving milk-wagons and serving newspaper routes at injuriously early hours in the morning. Or school children may, under the sweating system, do a large variety of work in manufacture, in the home, out of school hours, to the grave injury of school work and of health.

To meet these dangers, several states prohibit outright all work at night for children below the age of sixteen years: e. g., Illinois in all gainful occupations, and New York after 5 P. M. in manufacture, and after 7 P. M. in retail trade and the delivery of merchandise and messages; while Massachusetts forbids such children to work after 6 P. M in the textile mills.

Second only to the widespread dread of suffering for orphans and children of widows, if forbidden to work, is the fear of driving industry out of a state by sudden sweeping banishment of large numbers of cheap young workers from the labor market. No state, therefore, has hitherto prohibited outright the indoor employment of children below the age of sixteen years. And the methods of gradual approach to the sixteenth birthday as the time for beginning to work vary in the different states. The tendency in this direction, however, in the northern states, is conspicuous. Thus eleven states[1] now forbid children below the age of sixteen years to work in mines, or in specific industries injurious to the health, or in both mines and such industries.

A third method of reducing the number of children working before the sixteenth birthday is used by the fourteen states which forbid them employment longer than eight hours in one day. This list includes four great industrial states—New York, Illinois, Ohio, and Wisconsin—together with nine mining states of the Far West, and Nebraska. In the stockyards at Chicago, when the eight-hour day for the children to the age of sixteen years took effect in 1903, approximately one thousand boys and girls are said to have been dismissed.

A fourth means of reducing the numbers of children employed below the age of sixteen years is to require them to read and write English before beginning to work for wages. This is done in nineteen states. Among other effects, this provision tends to discourage the importation of detached foreign children of tender age, for purposes of exploitation.

The child-labor legislation of this nation will never be just to the children or to the employers until some minimum is established by the federal government, below which no state may go in its protection of its children. A child in Georgia, North or South Carolina has the same need of fourteen years of toil-free growing-time as a child in Oregon or Illinois. But there is no age too young for work in cotton mills in those three southern states for children who have the misfortune to be orphaned or afflicted with a disabled parent. If not the Beveridge bill under the interstate commerce clause, then some other law (perhaps under the general welfare clause of the federal constitution) must be enacted to establish an irreducible minimum of protection against too early indoor work for all the children in all the states, under the enforcement of the national government.

Meanwhile, in order that both nation and states may legislate wisely, there is urgent need of a federal bureau in the Department of the Interior to afford such ample current information about the children as the farmers now have concerning crops of all kinds. Is there any crop coming on in America today which compares in importance with the citizen crop? Or any concerning which it is so difficult to get trustworthy information?

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[1] These states are, for mines, New York, Oklahoma, Pennsylvania (inside anthracite mines), and Texas; for specific occupations, Kentucky, Minnesota, Mississippi, Ohio, Wisconsin; for both, Illinois and Montana.

REGISTRATION OF BIRTHS

It seems a simple thing to require that every child should be registered when born. Such registration, however, is lacking in a very large part of our country, the registration area being a well-known portion treated separately in the publications of the United States Census. Registration calls for the existence of some intelligent and responsible official, an officer of the board of health, or a city, county, or parish clerk, whose especial duty it is to keep such registers, thus placing upon the community the burden of a modest salary. The registration of a new-born child costs a few moments of the busy doctor's time, spent in filling out and mailing the required blank to the registering official, and there is also the cost in each case of the blank or postal card.

Even where, in some of the great cities, registration is obligatory upon physicians and midwives, negligence on the part of both is sadly common. A reputable physician in Chicago, with a large obstetrical practice, once told me that, having no blanks at hand, she had failed to register twenty-seven children within the year. In New York City, Health Commissioner Darlington has recently furnished blanks to all local physicians and has published anew a reminder in the newspapers that failure to record a birth is an offense punishable by a fine of $50.00.

There is one simple device warranted to secure obedience to the registration law, even by the busiest and most indifferent doctors and midwives. Whenever a child dies before the fifth birthday, the birth records should be searched. If the record is missing inquiry of the family elicits the name of the doctor or midwife responsible for the failure to record the birth. Immediate prosecution should uniformly follow. Where this method is unflinchingly followed, registration becomes, as it should be, a matter of course. Every child should be required to produce its birth certificate at the time of entering school. This requirement enlists the interest of parents in registration.

It is particularly desirable that women of intelligence should take up this subject, because the number of ignorant midwives is increasing rapidly and these are particularly flagrant in their disregard of the registration laws, where such laws exist.

Children born in this country, outside the registration area (or in places within the area where the registration laws are not respected) are, and for a long time will be, increasingly sufferers from inability to prove their age under the growing effectiveness of the child-labor laws in the industrial states. The more efficient the registration of births, the easier the enforcement of the compulsory education and child-labor laws, and the greater the benefit accruing to the children from them. In cases of crime against little girls where the age of the child is a material point in the trial of the case, registration of births is of the highest value to the children. Without such registration, it is an easy matter to frighten ignorant parents into false statements as to the age of the girl, and practical immunity to criminals for crimes against girls of tender age can often be secured in this way.

The greater the difficulty in securing to the children this right to be registered at birth, a right which they enjoy as a matter of course in all civilized countries[1] save our own, the greater the need of beginning to strive for it at once, without further loss of precious time.

JUVENILE COURTS

When the children are all effectively kept in school to the sixteenth birthday, and out of nightwork and the messenger and newspaper trades, the present duties of juvenile courts will be greatly reduced, and due attention can then be devoted to the enlightened and noble functions for the performance of which these modern institutions properly exist. For, delinquency due to absence from school or to unfit and demoralizing employment being eliminated, the courts will naturally be occupied with protecting children from injury by adults.

This the adult delinquency laws are only beginning to enable them to do.

Today the time of many juvenile courts is unduly absorbed in committing to institutions in crowded portions of great cities as incorrigible children who are able and active, but mischievous, who only need country life and freedom. On the other hand, feeble-minded children who need custodial care are at large in great cities and suffer all their lives from their liberty. Fortunately, both judges and public are increasingly alert to perceive the tragic absurdity of this practice, and the segregation of custodial cases among children commands every year an increasing share of attention and effort.

It is, moreover, in many cases, the drunken or otherwise unfit parent who should be incarcerated, not the children, for whom often a suitable home could be found if the noxious parent were effectively segregated.

The all-essential element in a juvenile court is the judge. Given the right judge, and he may be trusted to take the initiative in getting wise laws enacted and suitable probation officers retained (preferably selected from eligible lists under the civil service law). Today, however, there are several judges of juvenile courts so grossly and grotesquely unfit for their high position that they are a disgrace to the committees which tolerate them, and a curse and blight to the children whose fate they largely decide.

These judges of juvenile courts are all exerting their malign influence upon the lives of helpless boys and girls in cities in which women have no voice in the selection of judges. The most urgent need at the present moment is for more power and responsibility on the part of women in this respect. Committees of women voluntarily coöperating with the judge after he is elected, and women probation officers, working under the direction of the judge, constitute only the beginning of the participation of women in this responsibility for children under the law. The children need women learned in the law as associate judges, and in cases of crimes against little girls there is dire need of women as lawyers. Only those who have striven to bring to justice criminals guilty of heinous crimes against little girls have any idea how loath are counsel, prosecuting attorneys, judges, and juries, to visit upon these criminals the penalty which the law prescribes.

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[1] The Child Labor Committee of New York succeeds in getting from Europe transcripts of official birth records of children born in every country in Europe except Russia. Even Turkish records afford transcripts.

In New York City our newsboys' law, child-labor law, and compulsory-education law are daily frustrated by the unfitness of the elected magistrates to administer statutes framed for the protection of children.

It is by no means an accident that the first excellent juvenile court in the republic grew up in Denver, where its judge is kept in office by the combined efforts of enlightened fathers and voting mothers and teachers, in defiance of the utmost efforts of the politicians of both parties to dislodge him, and end his infinitely valuable work.

Indeed, for all the four forms of protection of children here under discussion, our efforts must continue to end in frequent failure as they have so largely done hitherto, until the mothers, the teachers, and all interested women in the community bear their full share in the election of the judges and all the officials who make, interpret, and enforce, or fail to enforce, the laws.

DISCUSSION

MISS JANE ADDAMS, Hull House, Chicago, Ill.—There is in Chicago a close and friendly co-operation between the organizations of women and the public authorities. In pursuance with this general policy, there is a committee of women who have organized a "League for the Protection of Children," whose fifteen paid officers are constantly co-operating with the police in overseeing dance halls, billiard rooms, and many other places of public amusement that they may be kept law-abiding, and as decent as possible. The League insists that all adventitious dangers shall be removed, and each officer in his own neighborhood tries to discover the pitfalls and temptations into which the boys and girls constantly stumble. They also investigate those respectable places which may yet become most dangerous if they are unguarded. One of the officers last month made an investigation of the waiting-rooms in the large department stores to discover how far they were used as a place for decoying girls. Within two weeks she brought ten men before the Criminal Court, and secured a conviction in each case.

Not all of the work of the League, however, is restrictive. The officers are most enthusiastic over the beneficial effects of the athletic fields and playgrounds lately established in Chicago, and they believe that well-directed and vigorous recreation will do much to substitute innocent pleasure for crime. A decided falling-off in the number of juvenile arrests is found in the neighborhood of these small parks. Under the Sage Fund, a careful study is being made into the records of the past ten years of the Juvenile Court of Chicago, from which the Committee hope to receive many valuable suggestions. The truth is, we do not really know our cities, and we utterly fail to make the connection between the perfectly unnecessary crime on the one hand, and the help which might easily be rendered on the other. It is a worthy work for organizations of educated women to bring these problems before the intelligent interest of the community.

COMPULSORY SCHOOL ATTENDANCE IN THE SOUTH

MRS. HERBERT W. MENGEL, LOUISVILLE, KY.

"Nobody never comes in here and nobody never goes out. My paw just growed up and never knowed nothin' and so did his paw afore him. Sometimes when I be hoeing corn on the mountain side, I looks up the creek and down the creek and wonders if there ain't nobody never comin' to larn me nothin'."

With these words, a well-known Kentucky author headed a newspaper contribution on educational conditions. They were the words of a small backwoods Kentucky boy who thus unconsciously voiced the cry not only of the thousands of children in Kentucky, but of the thousands and tens of thousands of children of the South who are growing up without any school privileges whatever.

I have been asked to speak upon compulsory school attendance in the South. I might as well begin by confessing that as yet there is no such thing in the South. If compulsory school attendance depended upon a compulsory school law alone, then we people of Kentucky might have been sitting with folded hands for many years and have puffed ourselves with pride that we alone of the southern states possessed such a far-reaching enactment. But unfortunately the law is one thing and the enforcement of the law is quite another.

Computing an average from six states immediately south of Kentucky, I find that 30 per cent. of the white children between the ages of ten and fourteen are not in school. Think of it; 30 per cent. of the white children out of school at that period that should be most sacredly guarded because it is the golden educational and preparatory period in the life of every girl and boy!

Have you ever read *No. 5 John St.*, and do you recall the efforts of the hero to uplift his fellow men, and how one girl pathetically shook her head saying, "Oh, why didn't you catch me while I was a kid?"

My friends, there are hundreds of thousands of children in the South today perfectly capable of becoming worthy citizens if we can but catch them while they are yet "kids." We can do this only thru the school, we must put them in school, but we cannot do it by merely legislating to that effect, for if we turn to Kentucky, where the law declares that children between the ages of seven and fourteen must be in school, we find that 22 per cent. of the white children between the ages of ten and fourteen are out of school. In the city of Louisville alone, where, according to the last school census, there were 62,000 children of school age, only 40,000 were in school.

I think I am making a low estimate when I say that probably 8,000 of the children out of school were between the ages of ten and fourteen. You would find them in the tobacco factories, the woolen mills and workshops of various sorts, or, worst of all, spending their days and nights in that school for crime—the streets.

It is thus evident that something is needed in Kentucky besides mere law on the subject.

In the first place, it is impossible to have school attendance without the enforcement of rigorous laws restricting child labor. School attendance is incompatible with a condition of affairs that permits children ten and twelve years of age to be at work. Child labor has been one of the things pulling against school attendance in the South. It is the thing we must fight and are fighting very successfully in several states. The people of Kentucky are certainly to be congratulated on the new law which went into effect June 15, and which prohibits the employment of any child under fourteen or any child between fourteen and sixteen being employed without giving proof of age and proof that certain educational requirements have been met. This law we feel is a great step forward and it is bound to affect school attendance very materially.

It is just such a law as this, accompanied as it must be by a compulsory-education law, that is most needed in the southern states. Neither one can be effective without the other, but together they will mean much to the South, tho they in turn demand much from the South, and it is these new demands that we must be prepared to meet.

In the first place, we must have thousands of additional schools and teachers. There is not a southern state today where school attendance could be made a test of the efficiency of the protection of its children because there are not schools enough to enroll the children if they were all dismissed from the mills.

There are thousands of children living in the rural districts of the South that have never had a school within their reach, like the little boy who looked up the creek and down the creek watching for someone to come and "larn" him something.

We must have not merely more schools, but better schools: schools that appeal to the children, that respond to their needs, that give the boy and girl more in the way of a trade education than those early years in a factory could possibly do.

Besides we must have comfortable and attractive schools. The dilapidated tumble-down rural schools of the South have greatly affected school attendance. They have excited neither interest nor respect and are largely responsible for that educational apathy that has been holding the South back for years. But this apathy must go and if the women of the South are of one mind on any one thing, it is in their determination that it shall go, and that in its place shall come the feeling that every man, woman, and child has his share of responsibility in upbuilding the schools.

Two years ago the Kentucky Federation of Women's Clubs set out to exploit the educational conditions of their state. We have done this with a sort of religious fanaticism that has not been popular with some of our people, but certain it is "Kentucky's bubble of self-complacency has been punctured," and Kentuckians have set to work. The evidence of revival is on all sides. Never has any previous legislature enacted so many laws and made so many appropriations for education as the legislature of the past winter. The club women have made speeches, and written pamphlets, and carried on a strenuous newspaper campaign—all in behalf of better schools. They have recently raised a fund of $3,000 to be used in paying the expenses of the women who are organizing school-improvement leagues. Forty of our counties have already been organized and soon the state will be covered with a network of leagues not only working to improve the schools, but arousing a public sentiment that will initiate and compel better legislation and push us on to still greater endeavor. In this league work we have followed the example set by the women of Georgia, Alabama, and North Carolina.

And now in conclusion let me say that I hope I am not leaving you only with the impression that we have no compulsory school attendance in the South, but I want you to feel that we are going to have it; that our faces are set in the right direction and that we are working hard for the things that will make compulsory school attendance possible. As a member of the largest body of organized women in the South, I come to you today to assure you that we are in the fight to stay and that we will not be content until our public schools can answer for the whereabouts of every child within their jurisdiction and guarantee to the nation that all our children are not only being properly educated, but properly safeguarded.

WOMEN'S WORK IN THE SOCIALIZATION OF THE SCHOOLS

MRS. O. SHEPARD BARNUM, CUMNOCK SCHOOL, LOS ANGELES, CAL.

Something of the significance of this new department, affiliating the National Organizations of Women with the National Education Association, is obvious to all; but only those of us who have long been active in both school and club and fully realize the possibilities of concerted action can adequately rejoice. In the schools we have seen burdens multiplying almost beyond endurance. In the women's organizations we have exulted in their sense of life and power, in their abounding willingness to strive for the common welfare. Such mutual realization should be general, and may become so thru this great new channel of communication. The women's organizations should know that demands of society on the school system have multiplied from the comparative simplicity of the three "R's" to include: the three "H's," the head, the hand, and the heart; the three "C's," character, conduct, and citizenship; to say nothing of the three "B's," the supplying of body, brains and bringing-up. They will listen with concern and a determination to help when they hear your highest authority say, "The school has taken over the entire responsibility for education which it formerly shared with the home, the farm, the apprenticeship, and a social order in which the individual was normally brought into contact with a number of industrial processes."

On the other hand, this new intercourse will show the teachers that the clubs have progressed; that they have, most of them, passed beyond the first stage of self-improvement by papers extracted from encyclopedias, which seemed to the teachers superficial; beyond the second stage of organization for its own sake, which seemed self-aggrandizement; that they have found themselves and their mission in social service, in which they have already made a wonderful record.

One fear may linger and make your welcome reluctant—the fear that our enthusiasm may wane and our coöperative undertakings not prove permanent. That this is improbable will appear if we summarize briefly the work under way and observe that it is not so much the assumption of new duties as it is the performance in new ways of duties as old as the race. The social and industrial revolution of the nineteenth century is very familiar, and my necessary reference to it may seem less trite if given by means of a specific example—an account of the work of a certain Mrs. Bryant of our great-grandmothers' time.

> Mrs. Bryant made the coats and breeches, the pinafores and other garments worn by her large family. She even made the green broadcloth suit that her husband wore in the Massachusetts Senate. The wool and tow came from sheep and flax raised on the home place. She gathered and prepared straw, braided it into hats and if they were for the womenfolk even made flowers for their adornment. She raised geese and plucked them for pillows and feather beds, or used their skins for tippets. She made twine and of the twine a harness. She kept her husband and children in handkerchiefs and stockings. She tended the bees, brewed beer, cleaned tripe and manufactured sage cheese, sausage, candles, and soap.

Of course, she also washed and ironed, baked, prepared all food from its crudest forms, and nursed the sick. When we think we are busy we should compare our domestic life with Mrs. Bryant's. Then we should realize what an army of workers is now serving us in these manifold ways; what responsibility we should feel for their welfare and that of their children; what pains we should take to have children regain in some way what they had in Mrs. Bryant's home and obviously have not in yours and mine—the opportunity of observing and learning these many handicrafts. We have been relieved by the new social order of what seems a dozen women's work and have been left with our own time comparatively free. This time is due and should be devoted to the new social order. To our homes and families we are still responsible for the cleanliness, wholesomeness, order, human justice, and kindness which Mrs. Bryant gained thru personal supervision. We shall have to gain them thru the Interstate Commerce Commission, Consumers' League, state, county, and city boards of health, and other public agencies, and especially thru the schools.

It is possible to give here only a very brief summary of woman's work for the socialization of the school, merely selecting the most important kinds of work and a few notable instances of each.

Probably the largest number of organizations are interested in domestic science, manual training, industrial training, school gardening, agricultural training, vocational studies, technical and trade schools. Their efforts extend all the way from "agitating for more buildings so that manual training may be added" to securing a permissive law, as they have in Arizona, and supporting the work at heavy expense. The clubs have given a very large number of scholarships for education in this and other directions. They have secured for industrial pursuits a regular place in the curriculum of many schools and colleges—notably in the State College of Kentucky and in Wisconsin, also in seventeen counties in Maryland, and elsewhere thruout the South. It was encouraging to find a long list of industrial and allied subjects on the program of this session of the National Education Association. We can joyfully urge the volunteer workers to become association members, get the *Report* and says as President Roosevelt said to Mr. Riis: "I have read your book and have come to help."

Next in popularity are the very numerous efforts to improve and beautify school grounds and schoolhouses. This is obviously an extension of the province of the home-maker. Notable instances are those of which Mrs. Grice will tell us and those of other parent-teacher associations. For beautifying one school building, three hundred dollars is reported from Oregon, and so on across the continent to Maine, where improvements are reported in five hundred school buildings and grounds.

Following the migration of home interests into community life we find the women's organizations beginning to aid the schools in looking after the extra time as well as the extra tasks. Day nurseries are supplied that those children may be in school whose mothers are in the factories. Kindergartens also are so provided. The club in Bisbee, Arizona, supports one. A club in Florida maintains one for the negroes; South Carolina has seventeen, seven of them supported by clubs. For the young girls and boys who must go to work even at the legal age, night schools are provided; also vacation schools and playgrounds for all. In Los Angeles we have six playgrounds supported by the city under a commission whose president is an experienced federation worker and whose secretary is a settlement woman. The Chicago clubs help support eleven playgrounds; the Woman's School Association of New Haven maintains three summer schools and three playgrounds; the Council of Jewish Women and others in Baltimore conduct vacation schools and playgrounds—this is only the beginning of the list. Some school buildings are being used for social centers; all should be. The John Hamlin School Extension is a noteworthy example.

A comparatively recent line of effort being prosecuted with vigor and great success, usually by the school authorities themselves, is medical inspection of schools; to this the volunteer association should add nurses and welfare committees. One might suppose that these more personal matters of physical well-being might be left to the homes. But there is a "plague of homelessness among the poor," naturally accompanied by other plagues, which spread to the best of homes if not systematically discovered and checked. Mrs. Richards has just proved at the Biennial, by a straight line of statistics, the relation between health and clean hands. She pointed out that the mother of old saw that the children washed their hands before eating, which the rush of modern life prevents the present mother from doing. Evidently, we shall have to "socialize" even the washing of hands.

Three additional lines of school improvement in which our women have the most intense interest are: special care of exceptional children, training in morals, and the study of civics. The mother's heart has gone beyond her own four walls and that heart is always most tender toward the feeble child; she always wishes supremely that a boy shall "be a good boy," and secretly hopes that he will be President.

The prevalence and bad effects of truancy have caused much concern. Los Angeles has had a peculiarly difficult truancy problem, the climate aiding and abetting by enabling boys to sleep out all the year round comfortably and find some sort of fruit or nuts always available in the country. It has been solved, however, so successfully that the special schools made up of chronic truants have attained the highest percentage for attendance—99 per cent. We are very proud to say that the principal of these schools attributes their establishment directly to the assistance and influence of the women.

Passing of necessity various other undertakings, one comes finally to a form of endeavor which is probably prophetic. This is community interest in securing for teachers better equipment, appreciation, and pay, longer tenure of office, and classes of more reasonable size. A principal previously referred to as gaining remarkable results says, "Fifteen is the ideal number for one teacher." Judge Lindsay, approached with today's problem and asked what we could do to help most, said that the one thing which would do more good than anything else would be to have enough teachers, so that each teacher could be the real friend of every one of her pupils.

From the kinds of work indicated above it seems plain that women's part in the socialization of schools is not capricious nor accidental but falls into simple groups, bearing direct relations to age-old duties. The important thing to realize is that her share, her responsibility is not new; that it seems new only because of changed methods; and that it does not intrude in any way on the distinctively academic work of the teacher. We may safely conclude that the new forms are essential functions of the "eternal feminine;" this and their obvious place in social evolution are surely sufficient to give them standing and dignity and place them above the suspicion of being transient or intrusive.

Miss Jane Addams has recently pointed out the fact that evolution is a method, not a force—that the force must be supplied. Fortunately for this evolutionary process the force is ready. After productive work left Mrs. Bryant's home and those of her contemporaries, there followed for the privileged class of women thus left at leisure a period of bewildered irresponsibility.

Then came the impulse for organization which has sped on unchecked by early ridicule and unspoiled by recent praise. By it women have fashioned the weapon strong and flexible, at once national and local, adapted to large bodies or small working groups.

In this constructive period considerations of method are of serious concern. The growth of our great organizations has been to a commendable extent toward quiet work, carefully based on ascertained facts. We would beg your association, and particularly our esteemed commissioner of education, for summarized statistics that will give important facts in portable, demonstrable form. We heartily wish you could bring about a uniform system of school reports; that these might have such arrangement and summaries as would enable one easily to determine the relation between expense per capita and any one of the desired improvements in education; for instance, between industrial equipment and the prevention of truancy and crime; between ungraded classes and continued attendance and progress; between medical inspection and rapidity of progress and successful completion of school-work. In the meantime, we wish there could be arrangements for issuing a report intelligible to the uninitiated on *some one school problem*, whatever the association might think most urgent or appropriate for our coöperation. Our education committees are now wishing to suggest lines of work for the next year in each state; such guidance would help us decide wisely; such report would be all the ammunition we should need.

It goes without saying that worthy volunteer officers must never criticize and never interfere. Studied avoidance of such grave blunders characterizes the experienced woman. The aim should always be to find out in any locality *what the schools want* and help them get it. The desire most commonly expressed in the reports of school superintendents is "to secure effective publicity as to the needs of their schools." There we can promise complete relief. No more effective means of reaching the representative people in every community could be devised than the clubs, their programs, and their reports. Another requisite of the successful coöperator is unobtrusiveness. To help in educational or civic ways one must assist officials who are responsible to the public; consequently self-effacement in the volunteer is indispensable. You may safely trust the National Organizations of Women to provide this highest type of worker. There may be local misfits in any organization; in general, however, I have observed a remarkable development of the spirit of wisdom, tact, unobtrusiveness, and deference to constituted authorities.

It is of supreme importance that school managements should be entirely out of politics. If, however, in any community the school system is not out of politics, woman should not rest until it is. She does not desire to be in politics, but still less does she desire to leave her children there alone. Our work should always be for measures, and not for men. This is not because we are women, but because most experienced civic workers, both men and women, have found it necessary for best results. If an organization never has anything to do with the selection of particular men, it is in a better position to hold the man elected, by whatever party, to his full public duty. The measure for which we should all strive is the selection of members of the school board by independent nomination, probably "at large," and preferably for an extended term. The second measure should be the insistence that all educational duties be performed by educational experts, their selection only resting with the board.

Two special organizations are desirable in most communities. A parent-teacher association is invaluable in every school for direct personal contact. A public educational association is usually necessary to enlist public influence and opinion for generous support. In this the education committee of the local women's club could be the nucleus; it should be composed of women who can quietly learn without ceasing, alertly watch, and give impetus to others, without being in evidence. Public officials or prominent citizens should probably be the officers of such an association, and the women be content and happy to work in the shadow, so long as results are attained. There should be an advisory body of experts in each line consulted on occasion. There should be a large sustaining membership, representative of all the interests of the community, including leaders of Catholic, Protestant, and Jewish churches; of Republican, Democratic, and other parties; of commercial and professional interests; of all organizations of a public character. They should meet once a year, or not oftener than quarterly. The executive committee should be able to act in emergencies. There should be a number of small working committees quietly studying and investigating different problems. We are learning that, even as a commercial asset, well-educated children are our most precious possession. Why may not other cities do as Cleveland is doing, and utilize such chambers of commerce for educational advancement? If, as Jacob Riis suggests, in some communities the women's clubs represent the only conspicuous moral force, then there should be among them a sort of clearing-house association, with representatives from each, working as above indicated, not by large and frequent meetings, but by small working committees. We have both in Los Angeles, besides receiving hearty support of the Chamber of Commerce, but find that there is enough to do.

In conclusion, let us say, with apologies to Browning, that the real club function is to furnish motive and injunction for practicing what we know already. It is easy to furnish the *motive*. The universal mother-love never fails to kindle when a convincing appeal is made in the interest of the children and the home. *Injunction* also is easily supplied. These organizations, comprising 900,000 members, are compact, with national, state, district and city sub-organizations. They have their standing committees and receive impulse and instruction quickly and systematically from center to circumference. We have come to you for the third element—what you know already, what you have tested and found good and desire to put in practice. The combination should be peculiarly strong and mark the beginning of untold good for the schools.

DISCUSSION

MRS. EDWIN C. GRICE, president of Parent-Teachers' Association, Philadelphia, Pa.—The key word of all true democracy is "co-operation"—the working together of the forces that create institutions in the interest of the institutions created. Our public schools stand today the one great democratic institution in our land, yet for the past decade and more the cry has gone up that their chiefest menace lies in their abandonment by the people; that those by whom the schools were created, and by whom they are supported, have withdrawn very largely their intelligent interest and co-operative influence.

We concede without argument the home stands as the substructure of all national life, that the school is but the broadening out of the home life, another stage in the preparation for citizenship. Yet steadily and without apparent let or hindrance these two formative forces in the lives of the coming citizens of our country have grown farther and farther apart.

Especially is this true in our large congested centers. This divorcement of the two most potent factors in the development of the child is the greatest educational problem of the city today.

First, how to awaken an intelligent, sympathetic interest in the schools on the part of the members of the community not in direct touch with the workings of the schools; and second, when once aroused how to relate the entire educational interests of a city to the people of that city regardless of creed, race, or condition, is well termed "the schoolmaster's new problem."

We feel in Philadelphia that we have taken a step toward the solution of that problem Several years ago the Congress of Mothers inaugurated a movement toward the formation of associations of parents and teachers. This was a distinct reaching-out on the part of the home to get into closer touch with the school. Some four or five such associations were formed and did fine work each in its own district, but they in no way related the interests of the different districts one to another.

Two years ago a joint committee composed of representatives from several organizations interested in the educational welfare of the city took hold of the work. Thru its efforts a league was formed of all the associations of parents and patrons connected with the schools. As an evidence of the broader scope of its purpose the associations in this league were called "Home and School" rather than "Parent-Teacher" associations. Within the first year of its existence the membership of the league reached over five thousand. Thru its Bureau of Entertainment and Bureau of Speakers it has served hundreds of people. Its Bureau of Speakers is composed of some of the most prominent educators in the city, representing the University of Pennsylvania, the high schools, and schools of pedagogy. Physicians, clergymen, and lawyers are on the list, as well as men and women well known in other lines of special work. All this means an awakening of a personal interest on the part of many who have never before touched upon the city's school life. If nothing else had been accomplished other than the arousing of a common interest in a common cause among so many people the effort would have been worth while. One of the district superintendents speaking lately of the movement said, "It would be difficult to tabulate the influence of this effort on the social life of our city. Allowing at the lowest estimate two hundred people to each meeting in the schools served gives a showing of twelve thousand people reached by the league, and when the meetings are multiplied by the weeks and months of the season it is easy to understand why we hope to have the number reach nearly one hundred thousand before the schools are closed."

To socialize the school still further and bring it into living vital touch with the conditions of the community life about it, five school buildings have been opened at night as social centers, gathering in the boys and girls, the young men and women, giving them evenings of bright, cheerful, clean recreation, under careful paid supervision. The report comes alike from all these centers of a moral uplift to the neighborhood.

The same kind of work is being done in many of our large cities, but the strong point of the home and school movement as developed in Philadelphia is the fact that it is effort the people themselves are making; the people of each community assuming the responsibility for their own center of influence; manning their own organization, and conducting their own business. It is just at this point we would call attention to the difference in interest and permanent result between work done by the people of a community for themselves, and the same thing forced upon them from without, whether it be by board of education or private philanthrophy. We believe that this effort of the people toward the self-government of their local associations draws out from each community those forces that should make for civic uplift, always provided they are guided and stimulated by the influence and coöperation of the school and its faculty. This seems to us the truest form of adult education.

In the local associations each community expresses its interest in its school and the homes related to that school in ways that seem best suited to its own needs. In the conference of all the associations held once a year, each community touches upon the life and interest of every other community represented, and in this real way relates itself to the whole educational interest of the city. Once during the midyear a joint entertainment is given, the program being composed of numbers from the different associations. These entertainments are given as a means of demonstrating some of the many phases of home life existent in a great modern complex city. No one could attend any such without a deeper realization of the problems facing our educators day after day, nor without recognizing the unifying sense of the league's work. As the children, or adults, of one community after another appear, one catches a glimpse of the American city's great problem, rather should we say great privilege. And we find ourselves answering the old-time question, "Am I my brother's keeper?" by the modern query: Is not this effort toward socializing the public schools bringing us one step nearer the true interpretation of that "brotherhood" which makes us in the best sense the "keepers" one of another?

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